NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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THE USES OF SNOW.

JANUARY, and the SNOW, both contribute to the fertility of the soil, and each has its distinct mission in the production of future crops. Let us consider *the uses* of the latter with a little care.

In this community, where the people are trained to believe that there is a wise purpose to be accomplished by all the phenomena of nature — the religious as well as the philosophical mind is curious to search out the advantages to be derived from them. The beneficent influence of rain, by giving moisture to the earth and purifying the atmosphere, is apparent to all. But *the uses of snow* are less obvious, though it truly is one of the greatest blessings of Providence. Our readers will recollect the unprecedented quantities of snow that fell during the last winter; let us carefully note some of the phenomena that attended it. Through this deep and uniform mass of snow, which fell simultaneously over the whole North American continent above the latitude of 36°, the heat of the earth's surface could not escape, being confined as by a thick blanket. Hence a nearly uniform degree of cold suddenly pervaded all this large extent of territory, because the atmosphere was no longer warmed by the radiation of heat from the earth's surface. The principal sources of heat were from the region south of the snow-clad territory, and from the ocean; but the currents from the north, containing a dense and heavier atmosphere, were sufficient to overpower any current that might press against them from any other direction. Hence snow-storm followed upon snow-storm, until the winds from the ocean were reduced to nearly the same temperature with the overland atmosphere, and were exhausted of their superfluous moisture. By this time such a mass of snow covered the whole continent, as to make it evident that the power of the sun's rays in the spring must be present, before it could be melted away.

The first apparent consequence of this heavy body of snow was the uniform cold temperature of the weather that prevailed. There were no sudden changes, as usual, from thawing mildness to extreme cold. One unchangeable temperature but a few degrees above zero prevailed throughout the winter. The wisdom of physicians and the common sense of mankind agree in considering this uniformity of temperature as highly favorable to health. Colds, fevers and consumptions are always the most prevalent in a changeable climate, and during a changeable season. Hence it has been lately thought by some physicians that consumptive patients would do better to spend their winters in Canada than in Georgia. Last winter was healthy, because the weather, though severely cold, was even; and this evenness was the effect of the universal covering of snow. The heat that would have ascended from the earth was shut in; and the rays of the sun could not produce an extraordinary amount of heat, because they acted only upon a white reflecting surface. Thus it is evident that a general covering of snow is favorable to health by promoting an evenness of temperature.

Let us look still deeper for other advantages. Let us consider whether its action is favorable or unfavorable to vegetation, during the following seedtime and harvest. It is evident that the surface of the earth can not well be robbed of so much heat as escapes from it in open winters. This could be made clear by a process of reasoning on chemical principles, as we will soon attempt to prove in the language of Count Rumford, who took a

great deal of pains to investigate this subject. It was declared by workmen who were employed in excavating underneath the snow, that the earth which is usually penetrated by frost to the depth of 10 or 12 inches, was last winter covered only by a mere incrustation. Indeed, we observed this more than once ourselves.

"The snows," says Count Rumford, "which cover the surface of the earth in winter, in high latitudes, are doubtless designed by an all provident Creator, as a garment to defend it against the piercing winds from the polar regions which prevail during the cold season.

"These winds, notwithstanding the vast tracts of continent over which they blow, retain their sharpness, as long as the ground they pass over is covered with snow; and it is not till meeting with the ocean, that they acquire, from a contact with its waters, the heat which the snows prevent their acquiring from the earth, the edge of their coldness is taken off, and they gradually die away and are lost.

"The winds are always found to be much colder when the ground is covered with snow, than when it is bare, and this extraordinary coldness is by many supposed to be communicated to the air by snow; but this is an erroneous opinion; for these winds are in general much colder than the snow itself. They retain their coldness, *because the snow prevents them from being warmed at the expense of the earth;* and this is a striking proof of the use of snows, in preserving the heat of the earth during the winter in cold latitudes.

"It is remarkable that these winds seldom blow from the poles directly towards the equator, but from the land towards the sea. Upon the eastern coast of North America, the cold winds come from the north-west; but upon the western coast of Europe, they blow from the north-east.

"That they should blow towards those parts where they can most easily acquire that heat they are in search of, [in the efforts of nature to produce an atmospheric equilibrium] is not extraordinary; and that they should gradually cease to die away upon being warmed by contact with the waters of the ocean, is likewise agreeable to the nature and causes of their motion; and if I might be allowed a conjecture, respecting the principal use of the seas, or the reason why the proportion of water upon the surface of our globe is so great compared to that of the land, it is to maintain a more equal temperature in the different climates, by heating or cooling the winds, which at certain periods blow from the great continents."—*Essays.*

As an illustration of the truth of this remark by the learned and observing Count, the farmer, all through New England, might point to his young fruit trees, most of them *leaning to the east*, by the prevailing and strong north-west winds, which give them that tendency before their roots have taken sufficient hold to keep them in an upright position. Some careful persons place props on the easterly side of choice trees to prevent their getting out of the perpendicular. It ought to be some compensation to the orchardist who sees his trees a little out of shape, to remember that the winds are on errands of love, and will faithfully perform their mission, though they may touch him a little rudely as they pass.

There are many species of plants that vegetate under the snow, in high northern latitudes. Among these may be found the land moss. "This moss, (says Dr. Darwin) vegetates beneath the snow, where the degree of heat is always about 40°: that is, in the middle between the freezing point and the summer heat of the earth: and is for many months the sole food of the reindeer, who digs furrows in the snow to find it, and as the milk and flesh of this animal are almost the only sustenance which can be procured during the long winters of the higher latitudes, this moss may be said to support some millions of mankind."

But in our own latitude, when the snow falls so early as to cover the earth before it has become frozen, all the perennial plants slowly vegetate under the snow; their roots send some new rootlets into the earth, and are thus prepared to vegetate with extraordinary quickness, on the arrival of spring. The rapidity of vegetation that occurs on the melting of the snows in the arctic regions is undoubtedly attributable to this cause; and not to the severe cold to which they have been exposed. The plants during winter, while covered with a deep bed of snow, are constantly increasing in vitality; but when exposed, as in open winters in our own latitude, to alternate freezing and thawing, the plants become exhausted of their vitality, and when spring opens, they vegetate slowly, because they cannot all at once recover from the injuries they have received from alternate heat and cold.

This explains why our winter grains—such as wheat and rye—usually flourish so well after a winter when the ground has been constantly covered with snow; for as we have already observed, the plants have been all the time increasing in vitality, and when exposed in the spring, are green, vigorous, and start at once into a rapid growth.—Some critical observers have also thought that young fruit trees, during such a winter, continue more plump, and are in better condition in the spring. It is certain that the sharp winter winds rob some plants of their moisture, and that slightly covering half-hardy shrubs, and such fruit plants, as the raspberry and blackberry, with leaves or earth, has the same effect as a covering of snow.

It is not unusual in our climate for quails and partridges to be buried in the snow, sometimes during several days; in this way they are preserved from the severity of the storm while it continues; after which they emerge into the light and air. Sometimes a thick incrustation of ice upon the surface prevents their escape and causes them to perish. These are a few of *the uses and influences of Snow*—but the subject is worthy of further and careful consideration.

For the New England Farmer.

MENTAL AND MORAL IMPROVEMENT.

It is a well-known fact, that the physical, mental and moral powers of man are increased by proper exercise; and, that they are, from a want of it, diminished, and sometimes almost totally destroyed. It is also known, that when we thus exercise and improve these powers, we are performing a duty which is incumbent upon every accountable being; and, that by so doing, we greatly enhance, not only our happiness, but also the happiness of all over whom we exert our influence. Seldom do we meet with an individual who is ignorant of these facts, or who will attempt, in word, to deny them, and yet how generally are they denied in practice.

Some persons discipline and improve their minds, but neglect their physical wants; others satisfy all the wants of their physical natures, but neglect those of the mind; and there are others by whom the whole duty is disregarded. But a very few, comparatively, exercise and improve all their faculties,—moral, mental, and physical,—but whoever faithfully performs this divinely appointed duty, receives within himself, and is capable of imparting to others, an almost infinitely greater amount of happiness than could have been received or imparted by him if he had, either wholly or in part, neglected it.

It is quite obvious that the part of this duty which relates to our physical natures is more generally performed by the great mass of mankind, than that part is which relates to our intellects and morals. Now if it is important that we should nourish and enlarge our physical strength and capacities, which we shall possess but a very short time, of how much greater importance it certainly must be, that we should improve that part of our being which serves not merely to distinguish us from the brutes, but which unites us to a future and spiritual world, and makes us almost equal to the angels.

While there are, as before mentioned, some persons, or classes of persons, who discipline, improve and enlarge their intellects, but who disregard the wants of the physical man, there is a much larger class who go to the other extreme, and while their physical powers are tasked to the utmost, those of the mind are almost wholly neglected. Of a particular portion of this latter class I wish to speak, and it is a large and very important portion—*the tillers of the soil.*

In a former communication I mentioned that the farmer "has time to observe, think, read, and reflect," and I do not withdraw the assertion, but think it should be modified by saying, *if he will take it.* "But," says some hard-working farmer, "how can I take time to read and study, when by working every moment of the time from morning to night, I can only keep square, or a little more than square, with the world?" This is true, without doubt, but are you willing to own that you are such a slave to your farm, that you cannot devote an hour, or a couple of hours, each day, to the performance of a duty which you owe to your Maker, to yourself and fellow-creatures, and which is just as binding upon you to perform as is the duty of earning a living for yourself and family, and of keeping square with the world? You have physical wants, it is true, which it is highly important and necessary for you to supply, but have you not, also, other wants, the supplying of which is of far greater importance? You have a *mind* which directs and controls your physical powers—which elevates you in the scale of being, far above the brute creation—which, after your body has crumbled to dust beneath the grassy mound, will continue to exist, to observe, think, and remember, just as it now does; and the duration of this existence will be forever and forever! Are not the wants of the mind, then, worthy of attention? Should we not earnestly desire, and strive to develop, enlarge, and purify this part of our natures—this great gift—the noblest, the richest which the Almighty Father has bestowed upon man? You say you have no time, but have you forgotten the long winter evenings at your disposal, and the many days of inclement weather, both in winter and summer, which could not be spent in a better manner than in cultivating your mind? Besides, if you would, as a part of your mental discipline, endeavor to acquire a thorough knowledge of your profession, you might, without doubt, make your lands more productive than they now are, without working as hard or as many hours as you now do, thereby gaining time for mental improvement.

Many farmers are already pursuing this course; and others are beginning to perceive, that without a thorough knowledge, theoretical and practical, of all the mysteries of the science of agriculture, the farmer is in danger of making great mistakes, and of meeting with losses from which he would have gladly escaped.

Although the farmer has more time to improve his mind in winter than in summer, yet he should not let a day pass, without making some progress in the noblest occupation in which man can be engaged. He should not think, as many seem to do, that his efforts for mental improvement while a schoolboy, however great they may have been, are all that duty and the wants of the mind require; but he should consider that those efforts are only a commencement of the great work of self-culture—that he has only caught a glimpse of the boundless field of knowledge.

It is the opinion of very many individuals of learning and experience, that there is no profession or pursuit in life which affords such good opportunities for the development of man's whole nature, as does the peaceful occupation of the farmer. And yet how many farmers there are, who, instead of improving these opportunities, are making perfect slaves of themselves and those whom they employ—slaves to hard work! They work, work, work, from early dawn until sleep closes their eyes, without stopping scarcely for a moment, except to snatch a hasty meal, and do not even afford themselves—so far as their intellects are concerned—the luxury of reading a newspaper! Now a man who is spending his days in this manner cannot be making much progress in mental, if in moral improvement. His physical labors are so constant and severe, that to perform even a very small amount of mental labor is, for him, an almost impossible task. Thus, although he may be strong and vigorous, physically, yet he is, mentally—unless his mental powers are, naturally, very great—weak and obtuse.

Doubtless many young men are prevented from becoming farmers by the false impression which prevails in the community, that the farmer's life is, from the nature of his employment, unfavorable to mental improvement. But let me say to such as

are, for this reason, hesitating whether to choose the farmer's life or some other, that unless you desire a profession which is purely literary or scientific, there is none other than the farmer's more favorable to the improvement of the mind; but it will depend wholly upon your own will and efforts, if you choose this profession, whether it will, in your case, prove to be such, or otherwise.

It is not my purpose, in this article, to point out any particular means by which the farmer can best improve his mind—I leave that task for abler pens, (indeed, it has already been partially done, through the columns of the *Farmer*,) but only to awaken him to a proper sense of the importance of man's true work—self-improvement. But if a farmer has had no such means pointed out to him, he need not despair; for if a man sees the importance of a certain work, whatever the work may be, and has a determination that it shall be done, in spite of all obstacles, the probability is very great that the work will be accomplished.

But "the tree of knowledge is not the tree of life." A man may possess the knowledge and intellectual capacities of an angel, and yet, if his moral powers are weak and uncultivated, he is wanting in those qualities of the mind which are essential to true happiness, and which are alone capable of making him a useful and trustworthy member of society. Thus, while the farmer, and every individual, should strive, by every possible means, to discipline, improve and enlarge both his perceptive and reflective intellect, that higher part of his nature—his moral powers—should not be neglected.

A spirit of humility, of contrition for sin, of devotion to the Supreme Being, of honesty, of kindness and forbearance toward our fellow-men, should be constantly cultivated; and we should ever look forward, with faith and hope, to that glorious land where there will be no hindrances to our progress in knowledge and goodness. L. L. WHITE.

Groton, 1856.

For the New England Farmer.

LUNACY.

No delusion is more prevalent, or more deep rooted, than belief in the moon. Especially does this seem true in the "rural districts." With multitudes, Luna is no less an object of veneration now, than she was to the ancient Romans.

She is regarded as having entire control over the weather. Fair weather and foul, storm and calm, heat and cold, wet and dry, are her servants, going and coming at her bidding. That important personage, known as the "Secretary of the Weather," is her prime minister, and through him she executes all her behests.

She seems emphatically a *fickle* goddess. All her administrative acts are the result of *change*. So long as the moon is quiescent, things remain *in statu quo*. If in a drought, we must remain thirsty. If it rains, we must let it rain. In whatever condition we may chance to find ourselves, therein we must be content to remain. But when the moon *changes*, when the fickle goddess turns herself in bed, then, ye sublunary mortals, look out for something to "turn up." Then look for rain if you need rain, for dry weather if already too wet, for warmth, if too cold, and cold if too warm. Now cut your grass, sow your grain, plant your squashes and beans, kill your pork, and do a thousand other things which require smiles of the moon. If you wish your colts, calves, pigs and babies to do well, wean then while the moon is waning.

Now, Mr. Editor, I regard this all as sheer nonsense—as mere twaddle—as among the shallowest of that species of troublesome insects, called humbugs. To talk of the changes of the moon affecting the weather and controling vegetation, is unworthy the intelligence of the age, and should be exploded. I should as soon think of attributing influence to the recent letter of a certain prominent Boston attorney, who would save the Union, or his bacon, by a flourish of his pen. Moonshine all.

FEEDING CATTLE.

Much attention is now given in this country to the *breeds* of all the various kinds of farm stock, from horses to bantams. The old world has been pretty thoroughly explored for choice specimens of animals, which have been purchased and brought to this country with little regard to cost or expense. At nearly all our cattle shows may now be seen the representatives of the herds of England, France, Spain, and even of the Celestial Empire, and they very often carry away the highest premiums. We do not object to this. We rejoice to see American farmers manifesting a determination to have the best stock the world affords, and to avail themselvs of all improvements, whether made by the Arabs, by the Caravan drivers, or by the graziers of Europe. But while we have admired the fair forms of these animals at our Agricultural Exhibitions, or traced their pedigrees in the books, the inquiry has often been suggested to our minds, whether in our admiration of "Blood Stock," there is not great danger of overlooking the importance of that judicious care and feeding by which they have attained their present degree of excellence, and without which they will certainly deteriorate.

Our attention has been specially directed to this subject by the perusal of a detailed and long report on the "Management of Dairy Cattle," lately published in the *Journal of the Royal* (British) *Agricultural Society*. We propose to embody in the following remarks a very brief synopsis of some parts of this Report. We will premise that the writer, Mr. T. HORSFALL, appears to be very much of a "scientific farmer," and that various analyses are given in his report, and indeed that his experiments are based upon them. With these, however, we shall not trouble the reader; as the results of his experiments are all that we shall attempt to present.

In the neighborhood of the cities in England, where the produce of the dairy is sold in milk, and where quantity, and not quality, is the object, in-calving cows are purchased, with much regard to their condition, and are then fed in such a manner as to produce the greatest possible quantity of milk,

and, at the same time, to convert the stores of flesh and fat of the animal itself into that desirable liquid; which being done, the cow, greatly reduced in flesh, and no longer profitable, is sold to purchasers in farming districts where food is cheaper, to be fattened for the butcher or for another term of service with the city dairy keeper.

Mr. H. is not a city dairyman. He fattens his own cows, and purchases others to fatten. Much of his dairy produce is converted into butter. The objects, therefore, at which he aims, are quality as well as quantity of milk, and the production of beef; and his study has been to combine in the food of his cows, those substances best calculated to produce rich milk, and, at the same time, an improvement in the condition of the animal. Starting with the principle, that substances peculiarly rich in nitrogenous or other elements have a higher value for special than for *general* purposes of feeding, i.e., food rich in albumen has a much higher value for the production of milk than for fattening, or beef-making,—he sought assistance from what are usually termed artificial feeding substances, and while paying a strict regard to their comparative cost, he selected such as are rich in albumen, oil, and phosphoric acid, and other substances which analyses showed to be necessary to his purposes.

After various experiments and modifications, he has for the two past years adopted the following "bill of fare" for each cow: rape-cake, (an article generally used for manure, but which, by being steamed with the bran, &c., is rendered palatable) 5 lbs., and bran 2 lbs., mixed with a sufficient quantity of bean-straw, oat-straw, and shells of oats, in equal quantities, to supply them three times a day with as much as they will eat. The whole of the materials are blended together, and, after being well steamed, are given to the animals in a warm state. Bean-meal is added to the various messes, in proportion to the milk given by each cow, in such a manner as to give those in full milk, 2 qts. each per day, while those that give but little milk get but little or no bean-meal, which is added dry to the messes as fed out separately. When this is eaten up, green food is given, consisting of cabbages, from October to December; Kohl rabi, till February; and mangold till grass time. With a view to nicety of flavor, green food is limited to 30 to 35 lbs. per day, for each, and turnips are entirely rejected. After each feed, 4 lbs. of hay, or 12 lbs. a day are given to each cow. They are allowed water twice a day.

During May the cows are turned out on a rich pasture near the homestead; towards evening, they are again housed for the night, when they are supplied with a mess of the steamed mixture, and a little hay each morning and evening. During June, when the grasses are better grown, mown grass is given to them instead of hay, and they are also allowed two feeds of steamed mixture. This treatment is continued till October, when they are again wholly housed. His stalls are kept during the winter at a temperature of nearly 60 degrees.

Under this treatment, very satisfactory results are claimed. The whole stock is weighed monthly. The cows in full milk, 12 to 16 quarts a day, vary but little—some gain, others lose a trifle. Those giving 12 quarts and down to 5 per day, when free from ailment, gain without exception. This gain on an average of 8 quarts of milk per day, is at the rate of 7 to 8 lbs. per week each. A cow intended for fattening, continues to give milk from ten months to a year after calving, and is then in a forward state of fatness, requiring but a few weeks to finish her for sale to the butcher.

A great variety of statements are given to show the improvement made in the quality of the milk, by this system of feeding, which are summed up by the remark:—"I therefore assume in my calculation 16 quarts of milk as yielding a roll (25 ounces) of butter." To show that this is a large proportion of butter, a great number of cases are quoted from books, &c. A Mr. YOUNG, an extensive dairy keeper in Scotland, and a "high feeder," obtained 20 ounces from 16 quarts. A Mr. RAWLINSON churned 20,110 quarts of milk, and obtained 14 ounces per 16 quarts; and again, 23,156 quarts averaged over 16 ounces of butter to 16 quarts of milk. In Mecklenburg, Prussia, Holland, &c., 14 quarts of milk yield, on the average, one pound of butter, and in rare instances 12 quarts are found to yield one pound. On inquiry in his own neighborhood, Mr. HORSFALL found it computed that each quart at a milking represents one pound of butter per week. Thus a cow which gives 4 quarts at each milking will yield 4 pounds of butter a week; equal to one pound of butter to 14 quarts of milk.

No definite statement of the average quantity of milk per year, produced by this system of feeding, is given, because a portion of the cows are bought when nearly dry, and fattened. But the writer says:—"The cows I buy as strippers, for fattening, giving little milk, from neighboring farmers who use ordinary food, when they come under my treatment increase their yield of milk, until after a week or two they give two quarts per day more than when they came, and that, too, of a much richer quality."

The effects of this mode of feeding on the fertility of the soil of the farm is alluded to with much satisfaction. The improvement in the condition of his pastures, the writer says, is apparent. But we must not follow him into details here. With the statement of one individual, who, with a neigboring farmer, procured a steaming apparatus, and adopted the system of Mr. Horsfall, we must close our notice of this very interesting paper. We quote his words:

"In about five days I noticed a great change in my milk, the cows yielded two quarts each per day more, but what surprised me most was the change in the quality; instead of poor winter cream and butter, they assumed the appearance and character of rich summer produce; it only required 20 minutes for churning, instead of two to three hours; there was also a considerable increase in the quantity of butter, of which, however, I did not take any particular notice. My neighbor's cow gave three quarts per day in addition, and her milk was so changed in appearance that the consumers to whom he sold it became quite anxious to know the cause."

Perhaps some of our readers are ready to inquire if the editor of the *Farmer* really supposes that Americans are going to follow the example of this Englishman,—heat up their stables to sixty degrees, while their kitchens are down to zero; purchase a steaming apparatus, and then deal out to their cows three times a day such a compound of doctors' stuff as is here recommended—"rape-cake," "bran," "bean-straw," "kohl rabi," "bean-meal," &c.—and then weigh all their cattle once a month, to see just how many pounds they gain a week? We expect no such thing. But we do expect that such examples will set us to thinking, and show us that some little improvement in our management of stock is as possible and as desirable, as the improvement of breeds.

For the New England Farmer.

CATTLE SHOWS.

MR. EDITOR:—The cattle shows and agricultural exhibitions for the year having had their day, it may be well to take a brief "periscopic view," and inquire what have been the results; and what the most prominent features of the various exhibitions.

The season has, on the whole, been favorable to the husbandman. The pasturage has been unusually good, and has held out through the autumn, remarkably well. The hay crop has been abundant, and, although a good deal of the low ground hay was injured in getting, yet a large amount of the better qualities was secured in good order. The early grains yielded full crops, and were secured in good condition. The crop of Indian corn has been *quite middling*, and has escaped the frost, and ripened well. The crop of vegetables has, in general, been good. The only failure has been in fruits. But even this has been by no means universal. Pears have been abundant and fine. In some localities, there have been excellent peaches, and in various parts of the country, apples have been good, and of medium quantity. As fine specimens of apples, pears, grapes, and even peaches, have been exhibited at most of our shows as we are accustomed to see, though, perhaps, less in quantity.

The season has been remarkably fine for the raisers of stock, and the remark may be made, I think, with much truth, that all descriptions of stock, exhibited at the various fairs, were in fine condition. The quantity of fancy stock is rapidly increasing, and is fast taking the place of native stock, on these occasions. Grade stock, resulting from a crossing of fancy with native stock, is now an important feature in most cattle shows, and promises the most valuable results. The specimens of butter and cheese exhibited have been very abundant, and remarkably fine. The inventive faculties of the Yankees have been at work as usual. Quite a number of new implements and labor-saving machines have been brought out during the year, several of which will be found of permanent value.

But the prominent feature of the year in most of the cattle shows has been the exhibition of horses, or rather, the trotting and racing of horses.—Horse-jockeys, horse-fanciers, fast horses and "fast women" have been the most conspicuous objects on most of the "fair grounds," the present season, The reports of our agricultural exhibitions have consisted largely of descriptions of the performances of these horses, and their male and female drivers. The time made by the horses, and the skill exhibited by the drivers, related in all the dialect of the race-course, with all the "pomp and circumstance" connected therewith, has been the prominent feature of these reports. The slang of the horse-jockey and the phrases of the horse-breeder have been freely introduced into our family newspapers, and rendered familiar to all classes of the community. This change in the character of our cattle shows has come over them with great suddenness, and has spread far and wide, like a sweeping epidemic, and the taint of its contagion has affected, for the time, all classes, ages and sexes in the community. It is but a few years since the race-course at Cambridge was considered by all the good citizens of that ancient town, as a nuisance, and they persevered in their efforts, until the nuisance was "abated." But now, without any apparent cause, nearly all our societies that own "fair grounds" have laid out race-courses, some of them at an expense of thousands of dollars, and horse-racing and trotting are carried on under the sanction of the highest authorities. Men of character, intelligence and position lend them the support of their countenance and influence. Judges of our courts, members of our churches, lawyers, doctors, merchant princes, men of wealth and men of wit, find themselves upon the same stand with jockeys, blacklegs and gamblers, as judges of trotting-matches and races, eagerly engaged in deciding the nice difference between 2.29 and 2.40, and our staid and sober farmers and their families, old men and matrons, young men and maidens, who would be horrified at the idea of attending a "horse-race," assemble by thousands, and stand on tip-toe, with breathless attention to witness the contests, the results of which, in most cases, are determined beforehand, and are as well known to the "fancy" before the decision by the judges as after it, and O, tempora, O mores! our daughters as well as our horses, girls of tender age, girls of larger growth, and even wives, as well as fillies, pacers and breeding mares, are brought on to the course for exhibition, and gazed at, and criticised by thousands, and praised and flattered, and caressed, for the same reasons as the animals which they drive, beauty of skin, and form, and limb, and grace of action. Mr. Editor, what will be the effect of such an exhibition, and of the preparatory training for it, upon female character? Will not these females soon answer the description of a "fast woman," given by one of their own sex with so much *naivete*, "a woman

whom you can say anything to?" Will not the "brightest jewel in the coronal of woman," the crowning excellence of female loveliness, which, like character, "is tarnished by too much handling," and "soiled by being rudely breathed upon,"—modesty—be henceforth found wanting? I would commend this subject to the consideration of all sensible parents. There is certainly occasion for us all to stop and reflect.

It cannot be denied that the times are changed. The next question is, have we changed with them? or is it only a temporary "fury" which is upon us? and which we shall soon shake off? It may be well for us to inquire what has led to this state of things. I remarked above, that it had come over us without any apparent cause. But that there is a cause, and that it may be traced to its origin, I have little doubt. But I have said enough for the present. Perhaps on some future occasion I may revert to the subject again. S.

October 30, 1856.

A VIRGINIA FARM.

Mr. Isaac Newton, of Springfield, Delaware, Co., brought to the Agricultural room of the Philadelphia Society, on Wednesday last, samples of wheat and oats produced on his farm in Virginia. These samples being very fine, and knowing that Mr. N. cultivated a large tract of land in Virginia, on the Potomac river—having occasion heretofore to refer to it—we preferred some inquiries as to the character of his farm, and the results of his operations there.

He informed us that his farm comprised over three thousand acres, of which 1,800 were under cultivation, and 600 more he had just reclaimed from the marsh, which would be put down in timothy this year. The remainder was timber land, from which 600 cords of fire-wood were cut and sold during last winter. The soil is alluvial, dark clay mould, on which lime produces an astonishing effect.

The amount of land cropped this season is as follows:—260 acres in corn, 150 acres in wheat, 130 acres in oats, 8 in potatoes, 3 in sweet potatoes, 6 in pumpkins, 4 in beans, and 4 in watermelons. The yield will be over 5,000 bushels of oats, and over 3,000 bushels of wheat. The corn, potatoes, and other crops look very promising. The wheat was thrashed out week before last, and is probably sent to market before this meets the eye of the reader.

This immense farm is worked by only ten hands —six white and four colored—and the product is very considerably more than was obtained by the preceding proprietor of the premises, who worked fifty slaves upon it. There is a thorough system introduced throughout, which works to the satisfaction of both parties—the employer and employed. The disparity in the force required now and before, is not so much in the inability of the men previously upon the place, as the want of system in conducting the various operations—not more in a general sense, than one-half or one-fourth of the ordinary labor of a man is obtained from the slave that he is capable of performing.

This tract of land lies upon the Potomac river, twenty-seven miles below Washington, in Prince William county. Washington is the principal market, and where Mr. N. informs us, is at all times found a ready sale for all the products of the farm.

The whole of this immense farm is managed by G. Bolton Newton, a son of Mr. N., *nineteen years of age*, who must needs possess all the energy, activity and straight forwardness of his father, to accomplish, in the successful manner he does, this herculean task.—*Germantown Telegraph.*

LABOR—AN ODE.

Toil swings the axe, and forests bow;
The seeds break out in radiant bloom;
Rich harvests smile behind the plow,
And cities cluster round the loom;
Where towering domes and tapering spires
Adorn the vale and crown the hill,
Stout Labor lights its beacon fires,
And plumes with smoke the forge and mill.

The monarch oak, the woodland's pride,
Whose trunk is seamed with lightning scars,
Toil launches on the restless tide,
And there unrolls the flag of stars;
The engine with its lungs of flame,
And ribs of brass and joints of steel,
From Labor's plastic fingers came,
With sobbing valve and whirring wheel.

'Tis Labor works the magic press,
And turns the crank in hives of toil,
And beckons angels down to bless
Industrious hands on sea and soil.
Here sunbrowned toil, with shining spade,
Links lake to lake with silver ties,
Strung thick with palaces of trade,
And temples towering to the skies.

GEORGE W. BUNGAY.

For the New England Farmer.

FRUIT PIES.

A correspondent of your paper, in a recent number, gives a recipe for making a pie crust which he thinks more healthy than the fashionable mode. Now I do not know what is the more fashionable mode; for the fashions change often; and, for myself, I have rarely, of late, eaten pie of any sort. But the plan which Mr. Barlow recommends, is, like all receipts which involve the use of saleratus, more or less objectionable. The pie made without any under crust is far more healthy. This, however, he is careful not to deny—he only tells us it is "better," and "more convenient," to have a crust such as he recommended, than to "dish out with a spoon." I wish he would go a little further, and tell us, not only that his own method is healthier than the fashionable mode, but that *no* crust at all, though it may be less "convenient," is still more healthy. And then, incidentally, I wish he would tell us, if he can, why his own less objectionable crust is better, aside from its convenience, as he affirms it is, than no crust at all.

When he has done this, I should like to ask him and you, reader, if you please, into the bargain—why we should have any fruit pies? Are our rich fruits, cooked, as they seem to be, in God's own way and sunshine, susceptible of improvement? A few may be, I admit; such as the quince, the coarse winter pear, and possibly, a few kinds of apples; but these, especially quinces and pears, are seldom wrought into pies. Who that has a stomach of any integrity, would think of rendering strawberries,

cherries, currants, gooseberries, huckleberries, peaches, plums, grapes, &c., any better by cooking? For my own part, I can hardly avoid looking with contempt on an immortal being spending her precious hours in half spoiling the Creator's choicest blessings by converting them into pies, puddings, &c. It is an old adage that "God sends meats, but the devil sends cooks." How the saying originated, I could better understand, if for the word *meats, fruits* were substituted. But if the cooks are to blame, are those who encourage them in their folly and guilt less so?

These remarks are not made to discourage the use of fruits, but only to discourage the abomination of pie-making. Apples and berries are better pies as they come from the hand of the Creator, than when metamorphosed by a wicked waste of time and money into a disagreeable compound of flour, sugar, grease, &c., ycleped pie.

There is nothing more gratifying to an unperverted appetite, such as we may fairly suppose was once known in Eden, than good bread and apples, pears, peaches, berries, &c., or even the rich boiled marrow squash. When our gay people, on laying aside their fat meats, as some say they are doing, use such food as this, instead of pies, cakes, preserves, sweetmeats, and puddings, we shall not be under the necessity of refering the dreadful mortality from consumption to the disuse of grease, for this disease will diminish from generation to generation as rapidly as it now increases.

W. A. ALCOTT.

Dietetic Institute, 20 La Grange Place, Boston.

THE CONCORD GRAPE.

This new variety, which caused so much discussion at its introduction some four years ago, is settling down to a place among standard fruits in northern gardens. No grape was ever introduced with a louder flourish of trumpets, and few were ever assailed with severer criticism. It is gradually winning favor, and appears destined to become popular, where the Isabella will not ripen. A fruit grower in Connecticut recently informed us, that it has done remarkably well with him, ripened this year by the 1st of September, while the Diana did not mature until the 16th, and the Isabella not until the last of the month. This is valuable testimony to its early maturity. The price has fallen from five dollars to one, and is now within the reach of all who desire it. We hear of gentlemen, who are making large plantations of it.—*American Agriculturist.*

FREE AND SLAVE LABOR.—The President of the Tennessee and Alabama Railroad Company has recommended that three hundred slaves be immediately purchased to work on the road. He enters into a calculation to show that the purchase money, interest, insurance and maintenance of a slave will be only about forty-six cents per day, or about $115 per year, (working days only counted.) The same labor by white men costs two and two and a half dollars per day. He recommends that some of the slaves to be purchased be located on a farm, convenient to the road, for the purpose of propagating laborers and mules, and producing provisions for the human stock.

SWIFT'S LAWN GRASS MACHINE.

Mr. HOVEY, Editor of the *Horticultural Magazine*, recently made a visit to Pine Bank, in Brookline, the residence of E. N. PERKINS, Esq., and among many other pleasant things says:

Our recent visit here by invitation of Mr. Perkins, was to see the operation of Swift's Lawn Grass machine, which was described in our volume of last year. It is an improvement upon the English patterns, which have been in use for some years, saving a vast deal of labor, and performing the work as well as the scythe, and better, unless in very skilful hands. The improvements, according to Mr. Swift, consist mainly in making the knives so adjustable, as to allow them to be ground and worn three-fourths of an inch; and so altering the form and construction, that stones will do no material injury where the English knife would be rendered useless.

Mr. Perkins's machine, which is one of the largest size, was put in operation on his beautiful lawn. The grass was very damp after a shower the preceding evening, and did not cut as well as when dryer; for, unlike ordinary cutting with the scythe, when the sward should be moist, the machine works better when dry, as it does not clog up so readily, and the grass is thrown into the gathering-box better. A pony harnessed in, and taking the handles, we took a turn round the lawn, cutting the grass as smooth as a carpet, and cleaning it up as neatly as if it had been swept. It works with the greatest ease, though a little practice enables one to manage it better, and cut with greater rapidity, especially where there are trees or shrubs. With care grass may be cut within a few inches of any tree or plant.

This excellent machine will save a great amount of labor, besides doing the work in such a manner as it is almost impossible to have it done, except where there is a gardener who has long practised cutting with the scythe, and it requires no little skill to do it well. With such a machine as Mr. Perkins's an acre may be cut in an hour! For amateurs, who have small lawns, one of the smaller machines that work by hand would answer every purpose, and working it would afford them the greatest pleasure. In truth, it approaches nearer to a toy than a labor-saving machine, doing the work of half a dozen men. We do not know of another of these large machines in our neighborhood, and we doubt not Mr. Perkins would be pleased to show its operation to any one who has the need of it, and would like to satisfy himself of its utility.

The knives may be so adjusted as to cut close or long; they are easily put in order, if by any accident they are broken, and the ordinary sharpening is effected simply by altering the gear so as to reverse the action of the knives or nippers: a few rapid turns backward puts them in the sharpest condition. The large machines cut a swath about three feet wide; the small or second size, about a foot wide.

We commend these machines of Mr. Swift's to all our suburban friends who have lawns of greater or less extent. The working of them is a recreation; and the smooth carpet-like surface which they leave is so much superior to the old plan, that when once in use it will never be given up; the lawn is not only cut but rolled at the same time; and frequent cutting and rolling is the only way to secure a thick and constant verdure.

LUDWIG'S PATENT TREE SAWING MACHINE.

We have numerous machines for manufacturing lumber into all sorts of useful articles after the tree itself has been brought to the mechanic; but nothing has until now been introduced to fell the tree in the forest, and separate the stem into pieces of suitable length for transportation or use. Mr. Ludwig thinks he has supplied this want. He has a machine to be operated by horse power, and another to be operated by hand, an illustration of which we give above. He says: "this invention is one of the modern improvements intended to facilitate the lumber business and the clearing of land.

By the operation of this machine the work can be done in quarter of the time, and there is no waste of wood as usual with, the axe. It requires but one horse power to drive this machine with sufficient force to saw the largest tree, and also to move it from place to place. Any man with ordinary capacity can manage it with perfect ease, as there is no machinery about it requiring any mechanical skill whatever in its management or operation. A belt wheel can also be applied for mechanical purposes.

Since introducing the above the undersigned has turned his attention to the production of a Portable Hand Power Machine, which is now offered to the public. This machine is so constructed that it can be put into operation in any place and worked by one or two men with decided advantage over any other machine which has ever been put into market, thereby proving itself to be the machine for any person who is engaged in the lumber business. It is readily applied to any tree either in a vertical or horizontal position.

Further information may be obtained on application to Matthew Ludwig, patentee and manufacturer, Boston, Mass.

A Mark of Progress.—*Porter's Spirit of the Times*, a journal devoted, as our readers are aware, "to Field Sports, the Turf and the Stage," has frequently congratulated the country on the happy fashion just now so prevalent, of ladies' riding at our County, and some even of our State Agricultural Shows. It last week furnishes a striking example of the progress thus effected toward achieving what it considers the aim and tendency of this Female Equestrianship, viz: to "*help make racing a national sport.*" Agreeing entirely, as we do, in this view of the probable result of such exhibitions, we cannot neglect to chronicle all the steps taken toward its accomplishment. The one in question is as follows: A challenge for a match of horses recently appeared in the paper above quoted, from a *lady*, who has found several equally "spunky" dames and damsels to accept it—about one of the latter of whom we now receive the information below:—

"Three times has she been a victor at the trotting courses of the Agricultural Fairs; on one of which occasions she (at Canandaigua) drove a black Morgan stallion, in harness, in the slashing time of 2.38. This lady desires us to say to Di Vernon, that she is indifferent whether the trial be in running, steeple-chasing, or in trotting; and if in running, is willing to go in either one or four mile heats."

According to present probabilities, the Union Course, which has already been the scene of so many similarly refined and ennobling contests, will shortly "behold two beautiful and high-spirited women, mounted on blooded running horses, flying through a four mile heat!" With *Porter's Spirit*, "we confess to no little interest in this business." *Are* our mothers, wives and sisters to be engaged in thus drawing the country "a few inches nearer the millennium" of the turf and its accompaniments? —*Country Gentleman.*

View of Life.—It is said all martyrdoms looked mean when they were suffered. Every ship is a romantic object except that we sail in. Embark, and the romance quits our vessel, and hangs on

every other sail in the horizon. Our life looks trivial, and we shun to record it.

'Tis the trick of nature thus to degrade to-day; a good deal of buzz, and somewhere a result slipped magically in.

So much of our time is preparation, so much is routine, and so much retrospect, that the pith of each man's genius contracts itself to a very few hours.—*Emerson.*

For the New England Farmer.

THE TROTTING GROUND.

FRIEND BROWN:—I notice from time to time communications in your excellent paper, complaining of the race grounds at your cattle shows as being fraught with immoral tendencies. One is almost induced to believe there is but one side to the question, but I must beg to differ somewhat, showing my reasons, which may be of little value to your readers.

Now, what are the objects of these annual cattle shows? Is it the best cow, swine, bull, yoke of oxen or horse team, that shall work the best at the plow and haul the heaviest load? Is it the colt and best breeding mare that must be trotted out to show *speed* and *movement* in order to award premiums? (*a.*) If feats of strength are to be tolerated, why not feats of *speed*, which constitute one of the most valuable elements of the horse, particularly as applying to the pockets of the farmers? (*b.*)

A county race-course does not invite outsiders. Its county limits are supposed to restrict action under a committee of premiums—no interlopers allowed there. Since Young America is getting to be so *fast*, it seems to me that the cultivation of *fast horses* is our only hope of *keeping up*. I see no necessity of making this *county race-course* a *Pandemonium*, or the arena of a *Jockey Club*.

Farmers attach too much honor to the institution to suffer any such improprieties. *Speed* is sought for; a Black-Hawk colt at 3 or 4 years old has been sold at $1500, while a common animal would fetch $75 to $100. The farmer knows that road team-horses are being superseded by railroads, hence his attention is turned to *speed* as well as bottom. It is speed that gives the animal great value in the market—much greater than any other quality. (*c.*)

We are all susceptible to the fascinations of horse flesh, and even if your intelligent correspondents, J. A. N. Esq., and "Old Times," have not learned that "fast horses are good horses," or "that men of sense prefer not to use such," there are times and emergencies that speed is adapted to their wants, to "scamper like a spirit." "Harum scarum things" are particularly desirable in a chase of 5 or 6 miles for the doctor, or in grab-law times, when an army of creditors are all atilt for the sheriff, or in going to church 3 or 4 miles when our ears are freezing snug to our head, and our cheeks, fingers and noses tingle with acute frost-bite. But permit me to name a case of speed in the days of the revolution, (and there were many such, no doubt.) In the Diary of the late lamented Amos Lawrence,—a book that should lie cover to cover with the Bible upon every centre-table and household shelf in our country,—he relates the story that "the British are coming," (imagine the alarm.) "My father mounted the General's horse, rode a distance of seven miles, notified the men of his circuit, and was back again at his father's house in forty minutes. In three hours the men were on the march." (*d.*) This fast horse of the revolution played his good part. Our country can say most heartily, sacred to his memory.

Cattle shows are the farmer's jubilee, a yearly meeting, a gala day for a most praiseworthy competition. The charm of my boyhood life was "Lection day," its scrub races and bowls of punch, gotten up by the moose country landlord. It was a privilege then to pay two cents for a lemon peel. So with "gineral muster," when the capitalist boys "kept tent," with a cask of West India and a cock at either end, an awning between, that fitted snug around the bilge. Bill comes along and wants some good rum, price 3 cents a glass—"t'wont do;" he is sent to the next tent and gets better rum at 6¼ cents out of the other end of the cask. No cattle shows then.

Now in the absence of such good times, let us not fastidiously disparage rational pleasure or profit at our cattle shows. After the feats of strength have been tried by the animals, let the noble horse come in to the course and show his power of speed. He is nigher to us in attachment and more useful than any other animal. (*e.*) Why is he to become a gambling stock, or depreciate the morals of the multitude under a proper supervising committee of farmers? Try it, you good old Massachusetts farmers, a little longer, and if your sons and daughters are in danger, rebuke it by plowing up your race grounds. (*f.*)

H. P.

New York, Nov. 22d.

REMARKS.—(*a.*) Yes, friend POOR, and several other things. You are certainly right, so far.

(*b.*) Because there is no possible use on the farm, or by the farmer, for a "fast horse." If on any especial emergency he desires to go quickly, eight or ten miles an hour would be as fast as he would risk his neck to ride, and most farm horses will go at that rate long enough to answer the demands of such an emergency; while a "fast horse" would move about at the rate of twenty-five miles an hour!

(*c.*) The farmer knows that if he could manufacture brandy, it would sell all about him, and he knows well enough, too, what would be the consequence of such manufacture and sale on the families and farms. He knows *there is no necessity* for a horse of 2.40 speed, especially now we have the railroads which you quote; he must not, therefore, painfully train the animal to that dangerous speed,—because it subserves no interest of humanity.

(*d.*) Men sometimes perform wonders under pressure or excitement; and so will the horse. We know of some common farm horses, now, that probably never saw a course, that might perform the exploit you recite, if they were put to their mettle.

(*e.*) But not as a racer; he confers no benefit on man in that capacity, but rather does him injury.

(*f.*) The trial has been amply and satisfactorily made, and, by a large majority of those who originated and have sustained the shows, has been condemned; and they are men of sound judgment and discrimination.

DUTIES OF THE FARMER TO HIS FAMILY.

Order and neatness are among the marks of good farming. Where these are wanting in the arrangements about the house and farm buildings, they will be wanting on the farm. The farmer is bound to train up his family in good habits, and habits of order, by which everything shall be kept in its place, and everything done in its proper connection and habits of neatness, which shall lead to the instant detection and removal of every nuisance, are among the good habits in which children should be brought up from their infancy. The health, the comfort, and the respectability of his family demand this at his hand.

Among the provision which the farmer should make for his family, are all those arrangements and utensils which are calculated to save time, labor and strength. There is much hard work to be done in the family of the farmer, and on certain days and at certain seasons, the females are tasked to the full extent of their strength and powers of endurance. Now, I would not recommend that you should get every new pattern of cooking stove, or churn, that you may see advertised in the newspapers. But I would have you to keep those in good order that you have, and in a condition always ready for use. Have them in a convenient place, and so arranged as to save steps and strength as much as possible.

Provide for the happiness of your family. Many little attentions to their comfort, and arrangements by which their labors may be facilitated, contribute much to promote their happiness. The mistress of the family has many things in the care of her family to exhaust her strength and try her feelings, and the good wife will not fail to appreciate all the arrangements you may make for her relief, and increased patience and sweetness of temper.

Never require the females of the family to do those things which belong to the other sex. They should not be required to split the wood, or even to carry it into the house; to shovel the snow from the clothes yard, or to sweep the paths and alleys around the house, or carry pails of food to the hogs, or dig potatoes for dinner. Many a farmer's wife has been, and now is, subjected to drudgery of this sort. But it is to be hoped that the days of such service are nearly ended. All such labors should be considered a part of the daily business of the farm, and should be attended to in their season. The man who loves his wife, and wishes to make his home a happy one, will regard her feelings, and never subject her to mortification or degradation. Nature has implanted in the heart of every woman a desire to appear well in the eyes of others; this desire should never be opposed unless it oversteps the bounds of propriety, but should be indulged so far as your means will justify. It is associated in her mind with the feeling of self-respect, which is one of the safeguards of virtuous character. Never, by unremitting toil, render that fair and open countenance and those delicate features coarse and harsh, and cause that beautiful, active, symmetrical form to become bowed, crippled, and distorted by incessant drudgery. Remember that woman is not endowed by nature with the same masculine strength and power of endurance which was given to man. Her strength consists in her weakness, which appeals to you for support and protection, and in her beauty and gentleness, which appeal to your love and affection. And in all the arrangements of the household, you should remember that the duties of woman are not to be accomplished by muscular power and brutal force, but rather by skill, by tact, by perseverance; and in proportion to the extent of her labors and cares, should be the facilities and aids supplied to her.—Thus will her strength be spared, and her time saved for the cultivation of her mind, for the instruction of her children, and for the performance of those gentle charities that so beautify and adorn the female character. And how much more cheerful, aye and successful too, will be the labors of the field, when the sweet and happy smile of the contented wife meets you at the threshold, and sheds sunshine throughout your dwelling.

Another more high and important duty which the farmer owes to his family, is to supply them with the means of moral, religious and intellectual culture. Let your children be trained from their earliest infancy to be kind, obedient, truthful, industrious, and as fast as their intellect is developed let it receive appropriate culture. Never grudge the cost of books, periodicals or papers, or taxes for institutions of learning. Money paid for the education of your children is the best investment you can make for them, and remember that as the world advances in knowledge, and the comforts and conveniences of life increase, the standard of education must be elevated from generation to generation. It is not enough that your children are instructed in those things that you learned in the schools of your boyhood. They must be taught those that you now, in your manhood, feel that you need to know. There has been, as you all know, a great revival of interest in the cause of education within a few years past. Catch this spirit and let it enter into all the arrangements for the education of your children. But I must cut short my remarks upon this copious theme, and will only add, that you cannot afford to dispense with the institutions of religion, for to these we in New England are greatly indebted for our wordly prosperity. Teach your children to reverence the sacred word, to remember the Sabbath, and to do to others as they would that others should do to them; and never forget that in all these respects, your own example is the most efficient teacher, and that the lessons they are thus taught, will make the deepest impression upon their minds.—*Northern Farmer.*

HOW TO FEED YOUNG HORSES.

The adult horse does not require so much of the flesh-making principle as the young and growing animal, but he seems to require a greater variety. The adult merely requires enough to replace the waste—the wear and tear of his system. If he obtains more than this, the surplus is either excreted from the body, or else stored up within the same in the form of fat; and everybody knows that a fat horse, or a fat man, are not best adapted for a race, nor for hard labor; but of all others (except those in a state of debility) they are most subject to acute disease. With the young and growing animal the case is different. Here we require bone, muscle and nerve. Oats, corn and pollard furnish the same. The colt obtains from its mother's milk all the elements of its own organization

in a concentrated form—all that seems necessary for developing bodily proportions and hereditary traits—therefore, when weaned, the colt must be furnished with the same equivalents in the form of fodder, ground oats, wheat bran, and meal.

It is the young and growing animal that requires our greatest attention. If our readers desire to raise colts that shall remunerate them for the trouble and expense incurred, they must feed the same, during their minority, with a liberal hand. Any neglect at this period can never be made up in after life; the subjects will always remain lank and lean—living monuments of their master's folly, or ignorance, as the case may be. In addition to the food required for the colt's growth, we must also furnish enough to supply the waste incurred by expenditure of muscular power. We all know that the young are very active and playful. Every muscular movement involves an expenditure of vital force, and thus exhausts the system; therefore, in view of developing their full proportions, and promoting the integrity of the living mechanism, they must have nutritious food, and plenty of it.—They are not, however, to have a large quantity at a time, but little and often; the stomach is small, not larger than that of a man. Should it be ever distended with coarse and innutritious food, the organs of respiration and circulation become embarrassed, and the blood loaded with carbon. They require food often, because the digestive organs are very active, and soon dispose of an ordinary meal; then comes the sensation of hunger, which every one knows is hard to bear.—*American Veterinary Journal.*

For the New England Farmer.

SHALL I STICK TO THE FARM?

MESSRS. EDITORS:—I shall take the above interrogatory for a subject, and express my ideas to all young men who have not decided upon an occupation to live by. Good advice is frequently given and lost from not knowing the feelings and inclinations of those to whom it is given. Shall I stick to the farm? My friends, whoever you are, if God has not implanted in your soul a feeling of enthusiastic delight at seeing the progress which all kinds of vegetation makes from the deposition of their various seeds into the earth, until ripe, and ready to harvest, and given you a heart susceptible of gratitude for the good gifts of his Providence in rewarding your labors with his bounties, I should advise you to practice law, preach, sell medicine, spout politics, or do a great many other kinds of fancy business which many other young men who dislike farming have done, had we not already a full supply of such occupations among us. If you have no predilection to any particular occupation, I think you would wear a better conscience, if not better cloth, to give your minds to farming, rather than to a kind of business which would place you in the uncomfortable dilemma of spending one year out of every three or four of going through a "regular course" of chancery. I think it a grand mistake that farmers, as a class, or profession, are the degraded drudges and ignoramuses which some individuals have represented them. Go to our county and State fairs and look at them, and then judge for yourselves whether they are intelligent beings or not; their daily business has a tendency to lead them directly to the contemplation of natural philosophy; they cannot help becoming botanists, in a degree, whether they read or not. Observation does practically what reading does theoretically, they have the knowledge, if not the technical phrases, which those have who read more.

Many of our most celebrated men were poor when boys, and had to study their books and get their education while working at farming or some mechanical trade. I have known young men, myself among others, at their "noonings" and other leisure hours, instead of pitching quoits or "running into the store," take up their grammars and learn a good lesson while resting, even in haying-time, in defiance of that terrible fatigue which destroys all interest in study. Reading and acquiring literary knowledge depends very much on taste and inclination. There are many men of different occupations, who would not read to inform themselves upon any subject or science had they six hours of leisure time every day in the year; they have no natural desire or inclination to gain knowledge in a way which disciplines the mind with such rigor; but had rather go to public places of resort, race and trot horses, and discuss all sorts of subjects freely without discommoding the brain with dry study. As to the profit of farming, I fully believe the man who is able to labor and will give his mind to his business, can support his family in a more respectable manner on a rented farm, than a mechanic or trader can in the city on a salary of ten dollars a week. I can quote two of my neighbors who commenced on rented farms, without capital, and who are now independent farmers, with families of children, living in good style.

The young farmer must decide for himself whether he will be a mean ignoramus, or a respectable man. A man is known by the company he keeps. If a young man respects himself, he will not demean himself by associating with unprincipled persons, but will try to elevate himself by choosing respectable, intelligent and moral companions. He that worships the true God, or that principle which creates and impresses life into all animated nature, into growing plants and flowers as well as animals, will enjoy himself best at farming. But he that has no conception of a divinity, that cannot be adored only in the form of dollars and cents, would have his tastes and desires better gratified by following other pursuits.

Do men of other occupations have more leisure or lighter labor than farmers? Go to the tan-yard and see tanners work, then into the currier's shops and see if their work among offensive hides is cleaner than farmers'; look into the slaughter-house and see men working by day ankle deep in blood and filth, preparing their meat for market, and then by night to convey it to their customers; then look at the shoemaker who often works 14 or 16 hours out of 24, to the injury of his health, to earn his wages, and see how much time he has for study; look at the carpenters and masons, and see if their work is any less laborious than farmers'. All grocers and mechanics who are confined in shops to a sedentary position, or otherwise, show the want of the invigorating atmosphere which farmers enjoy. Inquire of the merchant whether he can repose on a bed of down while his vessels are the sport of tornadoes and thunder-storms? Consider the clergyman who taxes his brain three or more days in the week to study and write his sermons, and when Sunday comes preaches them to an

audience more observant of fashions than interested in theology—after residing in his society long enough to become acquainted, he discovers that he is too liberal for some and too rigid for others, and a union of dislike takes place, and he quits to seek another "field of operations," to meet a similar result. Consider the lawyer, who sometimes makes himself a knave by defending others in their knavery, and with his exorbitant fees gets more curses than coppers. While we are considering the evils incident to other callings, let us take a view of a doctor's life; if he has no business he will starve, if he has, he is the greatest slave in the world; worse than the dog which has but one master, he is subject to everybody's call; he may go without sleep every night in the week, but his time is not his own, necessity knows no law, and demands upon him are imperative, and he must go whether rewarded for his works in money, flattery, abuse, or nothing at all. I have lived among farmers the most of my life-time in preference to living in cities and villages where I had an equal chance to locate myself, but it has so happened that I have seen but few of those degraded, ignorant men called farmers, and they were responsible for their own ignorance and degradation by loafing, dissipated habits.

In different towns and different States those men worthy the name of farmers where I have lived, have possessed as much common sense and intelligence as those of any other occupation, and comparing them with merchants and mechanics, they have had more time for recreation than either of them in the course of the year. It is true that farmers, like other ambitious men, may toil themselves to death to accumulate bank stock or other funded property to leave their children, which, perhaps, they would have been better off without. I have known but few farmers who were deserving of the appellation who could not at pleasure find time to mount his carriage and drive "into town" and call upon his friends, or go aboard the "steamer" and visit his distant relatives as well as the "best of them." SILAS BROWN.

North Wilmington, Oct., 1856.

For the New England Farmer.

TREADWELL FARM IN TOPSFIELD.

This time-honored estate, comprising about 150 acres of tillage, meadow, and pasture land, situated near the bridge over Ipswich river, on the Newburyport turnpike, has lately attracted much attention, by the fact of its having been *donated* to the Essex Agricultural Society, "to encourage experiments in agriculture." Anxious to know what kind of an estate it was, we glanced our eye over it yesterday, in company of several prominent citizens of the county. We found it to be a marked illustration of what an estate may become when its proprietor lived at a distance, and suffered it to be managed by a tenant, on the payment of an annual rent from year to year, with no assurance of continued occupancy. About 40 acres of the land had been from time to time under the operation of the plow, fertilized by such manure as was made by the small stock kept on the farm, and no more. The quantity of upland hay cut annually was represented to be from six to ten tons; the quantity of meadow hay less than one ton to the acre, on the extensive plat bordering upon the river. The extensive pasture of sixty acres or more, rising from the river, on the southerly side to the top of the Topsfield hill, (so called) was represented as strong and good land; upon it is a considerable amount of valuable timber. I have been thus particular in noticing this farm, because it is the first instance within my knowledge of a donation of the kind to any of our agricultural societies. To be sure, the Bussy farm, so called, was given for the advancement of the science of agriculture, but not to the present generation. I have good reason to believe that there are gentlemen of wealth who would be pleased to give all that is necessary to make this a *model farm*, as soon as they can be satisfied that it will be wisely managed by those to whom it is given. This farm has lately been rented for $125 per year. It is estimated by the neighbors to be worth about $40 per acre. There is on it a handsome orchard of young apple trees, and an extensive plantation of maples, and other forest trees.

October 11, 1856.

NEW HAMPSHIRE AND VIRGINIA.

The *Southern Planter*, published at Richmond, Va., copies liberally from two letters recently written by us in New Hampshire, and published in the *Farmer*. The editor says:—"The following extracts exhibit a state of things with which the agricultural prospects of Virginia contrast most favorably. Here we are annually opening up and improving thousands of acres, and restoring fields—not farms—that have been exhausted and abandoned. All we want is an additional supply of negro labor to make the whole of lower Virginia blossom as the rose."

It was not our intention in writing those letters to convey any idea of lack of ability or energy in our people, or that our institutions do not foster all honest industry. On the contrary, none but men of unfaltering courage would have felled the forest and subdued the hard and unproductive lands which they have finally forsaken. The forest, there, was all that could renumerate man for his labor, and when that was exhausted, it would have been wise to allow it to grow up again and cover the nakedness of the land. But if the soil had been like that on the Potomac or James River, that deserted region would now be covered with productive farms and teeming with an industrious, intelligent and independent population. It was folly to battle with gravel banks, or with lands so thickly covered with boulders, as utterly to forbid the introduction of the plow. Cultivation was out of the question. Where the lands were cleared, they were occupied as pasture, with here and there a limited area for the indispensable corn or potatoes.

But how does it happen that the Virginia lands, deep and rich as they are, free from stones, and once covered with a dense and valuable forest, have "been exhausted and abandoned?" It could not have been because Nature had not supplied every-

thing necessary for success, for the original soil was all that could be desired, and the climate salubrious and favorable to all the grasses and grains.

Can the cause be traced to a want of skill in the occupants of the soil, or the influence of any institutions that may exist in that ancient Commonwealth? We know that such "exhaustion and abandonment" of fields has taken place, and more than a dozen years ago gave some of our personal observations of them in the columns of the "*Planter*" itself. It is probable that some of the families who left the barren hills of Massachusetts and New Hampshire, may have entered upon the "exhausted and abandoned" lands of Fairfax county, or those laved by the tides of Chesapeake Bay, or watered by the beautiful James River. If such be the fact, they will undoubtedly set a good example of industry and thrift, and literally make the "exhausted and abandoned" fields "blossom as the rose."

For the New England Farmer.

SHEEP ON SMALL FARMS.

I cannot say anything directly to the point in answer to "Essex," having never experimented to know how many sheep might be kept on a given quantity of ground, but with your approbation, Mr. Editor, I should like briefly to state my little experience in keeping sheep.

There is no stock I keep that causes me so little trouble, and no way I get a few dollars so easy. I have but a little, hard farm, and keep but a small amount of stock; say one horse, two or three cows, and ten to fifteen sheep. I let them all feed in the same pasture together. I do not say this is the best way, but with me it is a matter of necessity; and when I open a new lot in the fall, they all share it alike. In the winter, I feed my sheep plenty of good English hay and nothing else. Of course, I cannot boast of twenty, or fifteen, or ten pound fleeces, but range from four to five. I never winter any but ewes. I sell my wether lambs and oldest ewes, so as just to keep my stock good.—Last winter I kept ten ewes, from which I obtained 46 lbs. wool, sold at 42 cents—$19 32; raised 9 lambs, sold 6 at $9 75; sold 3 old ewes at $12 00; total, $41 07; lost two by accident and have eight left.

H. BRIGGS.

Fairhaven, Vt., 1856.

JESTS AND SNEERS.—Notwithstanding the best portion of the Southern States is composed of citizens from North Carolina, and notwithstanding North Carolina possesses advantages over all the Northern States, the witlings of those States will continue to crack their jokes over her supposed deficiencies. Even away over at the jumping off place, they are trying their wits at this sport, as will be seen by the following from the California *Farmer*:—"In North Carolina it is frequent among her forests of fat-pine, for a lover in distress to send the fair object of his affections a bit of its staple vegetable productions, with an eye painted upon it. This signifies 'I pine.' If favorable to him, the young lady selects from the wood pile the best and smoothest specimen of a knot, this signifies 'pine not.' But if, on the other hand, she detests him, (there is no middle ground between detestation and adoration with young women) she burns one end of his message, and this generally throws the young man into despair, for it means 'I make light of your pining.'"

THE HORSE IN THE STABLE.

If one would have a good horse on the road, he must take care of him in the stable. To the man who is fond of that noble animal, the horse, the stable is no mean place which is the *home* of his faithful servant. A part of the secret of the differences among horses may be found in the different ways they are treated in the stable.

This building need not have the embellishment of architecture, nor be made air-tight; but it should be comfortable—made to promote the comfort of its occupant. It should be well ventilated, by allowing a draught of fresh air constantly to pass through it, especially during the warmer months. Do not allow the air of the stable to be made offensive and unhealthy by the presence of ammonia escaping from the excrements. Keep the air in your stable as sweet as it is in your own house; for such is necessary for the health of a horse.

Plaster of Paris used freely about the stable is quite desirable, both on the score of comfort and profit. It is cruel to foster a noble horse in a stable where the air is suffocating on account of noxious gases constantly generating and escaping for want of a few quarts of some absorbent.

The floor of the stall should not have much inclination—only enough to allow the water to pass off. The more level the surface on which a horse stands the better.

It is said that "sprung knees" are occasioned partly by standing on steep floors in the stable. That such a floor is not pleasant for the horse, is clearly seen in the fact that when such a stall is wide, the horse will stand across his stall, in order to find the most level position.

Let the horse feel as *naturally* as possible in the stable. He has been furnished with a long neck in order that he may reach down to feed, as he does in the pasture, and not that he may reach up, and pull out a small lock of hay from the rack. Give a horse a manger to feed out of, so that he can enjoy eating, and not oblige him to steal his fodder from a rack, with narrow spaces, as though he did not deserve his keeping. It is thought that a horse will waste his hay if he is fed from a manger; but he will not, if he has good hay given in proper quantities.

The best horsemen say—feed a horse as you do yourself. Give him his breakfast, dinner and supper, with nothing between meals. It is a mistaken kindness that keeps hay continually before a horse. When he has more hay before him then he can eat up clean, he wastes it, or eats more than his system requires.

A horse should have *enough* to eat, and then, if not in use, should stand three or four hours with nothing before him. Such a course of treatment keeps his appetite keen, and he relishes his dinner.

Let him have a generous supply of good bedding. A horse enjoys a good, nice bed as much as a man, and why should he not have it? A

good horse deserves it. Because he cannot complain of sleeping in the wet and dirt of the stable, or on a hard plank, let no man think that his horse does not appreciate such favors as a good bed. He will lie down during the day occasionally, if he is well cared for. For summer use, saw-dust makes excellent bedding. It is cool, sweet and even; and also keeps the stall in a healthy condition.

A supply of fresh, clean water is indispensable to the comfort of man and beast. I have noticed that my horse drinks the most heartily after eating her supper, about eight o'clock in the evening.

Grooming is one of the civilities of the stable, and ought to be attended to daily. It not only causes a horse to look well, but it promotes health. A faithful grooming is equal to 2 quarts of oats.

Such attention paid to a good horse is by no means like "casting pearls before swine." He who does it, and treats his horse kindly, is sure of his reward.—*Maine Farmer.*

For the New England Farmer.

FARMING PROFITABLE.

Mr. Editor:—It is frequently said, that farming is unprofitable. This assertion I do not believe to be true. On the contrary, I believe, that all skilful farming is profitable. Some, I know, who have tried the experiment and failed in their business, have come to a different conclusion. But the reason why they failed of success in their business, was a want of skill,—they did not understand and skilfully manage their business. Had they possessed sufficient skill and a moderate degree of economy, they would have found farming to be profitable.

Many farmers, without any practical views, of the subject, skim over and attempt to cultivate too much land without cultivating any well; the consequences of which are, that the amount of their crops continue to diminish every succeeding year, and their lands grow poorer and poorer. If our farmers, who now attempt to cultivate ten acres, were to confine their efforts to six, and do their work thoroughly and well, their harvest would not only be equal the first year, but the prospective value of their farms would be enhanced. A more complete pulverization of the soil and a greater amount of manure upon a less number of acres, would leave it, after the crop is removed, more mellow and in better heart. It would not only yield more now, but afford greater returns hereafter. If two farmers, with the same degree of industry, skill, and means of labor, were to cultivate lands of the same quality, the one doing his work thoroughly and well, the other skimming over a large extent of surface in a very imperfect manner, it is easy to see, that he who cultivates the less number of acres, would not only have an equal harvest annually, but find at the end of ten years that his farm was worth double that belonging to his competitor. This consideration, by showing the extent of what can be done by a different method of cultivation, should excite every one to exertion. The farmer of many acres should be ashamed of being so far out-done by his successful neighbor. If he finds a man, in the same county, and on similar land, can raise sixty bushels, where he only gets ten or fifteen by his skimming process, he may be induced to alter his method of cultivation. He may be led to bestow his labors on a less number of acres, and reap an equal, if not a greater crop. This spirit of improvement will naturally lead to the selection of the finest and best animals, and to raising those only which have the requisite qualities for being productive and profitable. A poor man, who keeps but a single cow, or a single pig, may partake of this improvement; while, to the wealthy farmer, it is in itself sufficient to make all the difference between a productive and unproductive farm.

No pursuit is more useful than tilling the earth; none nobler, none more pleasing; and yet, none has been so much neglected. Few attempts have been made to improve the art of cultivation, and the inclination has been strong, almost universal, to devote the whole skill and capital of the country to commerce, trade, or manufactures, considering all exertions to derive a greater profit from agriculture as hopeless. Our fathers never thought of making any improvements in the art of cultivation. If their land was not sufficiently productive, their remedy was to sell it, and to go in pursuit of a richer soil. It was not by the employment of greater skill, but by a change of location, that they sought to improve their condition. Those who remained upon the soil, continued to cultivate too much land, so that the labor applied to it only produced a very small crop. There was hardly a farm where the quantity of ground in tillage was not too much for the strength that was employed upon it. Hence, not only the labor but the manure was diffused over too large a surface to produce much effect. The consequence of such a kind of farming was not only to lessen the amount of produce year after year, but to prevent a permanent improvement of their lands; and its effects have extended down even to our times. And, even now, the evil in question is so radical and extensive, that its bad consequences cannot be too often pointed out, in order to be avoided in future.

The lesson to be taught, to be believed, insisted upon, and reduced to practice, in our day, is, that skilful farming is profitable, and "will pay." Never, since the creation of the world, was there a time in which all the articles of produce raised on a farm bore a higher price, or met with a more ready sale, than the present. This has been the state and condition of things for the last ten years. There has been little or no competition among farmers with regard to the price of their produce, so that they have received whatever they saw fit to ask. They have had the best market in the world, and met with a ready sale for all they could produce. So that farming, on the whole, has been, and still is, a profitable business. It is true, it does not open the door to all who are in "hot haste to be rich," to rush in and accumulate large fortunes; but to all the skilful and economical who are contented with moderate gains and reasonable profits, it holds out the strongest inducements.

John Goldsbury.

Scraps and Refuse Economised.—The chemistry of art, like a prudent housewife, economises every scrap. The horse-shoe nails dropped in the streets during the daily traffic, are carefully collected by her, and reappear in the form of swords and guns. The clippings of the travelling tinker are mixed with the parings of horses' hoofs from the smithy, or the cast-off woolen garments of the poo.

est inhabitants of the sister isle, and soon afterwards, in the forms of dyes of the brighest blue, grace the dress of courtly dames. The main ingredient of writing ink was, possibly, once part of the broken hoop of an old beer barrel. The bones of dead animals yield the chief constituents of lucifer matches. The dregs of port wine, carefully rejected by the port wine drinker in decanting his favorite beverage, are taken by him in the morning in the form of Seidlitz powders, to remove the effects of his debauch. The offal of the streets and the washings of coal gas reappear carefully preserved in the lady's smelling-bottle, or are used to flavor blanc-mange for her friends. This economy of the chemistry of art is only an imitation of what we observe in the chemistry of nature. Animals live and die, and their dead bodies, passing into putridity, escape into the atmosphere, whence plants again mould them into forms of organic life, and those plants actually consisting of a past generation, form our present food.—*Exchange.*

CEMENT WATER PIPES.

Excellent and cheap pipes for conveying water, may be easily and cheaply made of Hydraulic Cement, mixed in the same manner as when used for making cisterns. Any one can make these pipes. We have frequently directed their construction successfully, and presume we can direct our readers.

Having a ditch wide enough for a man to work in, and deep enough to be secure from frost, leaving the bottom with a concave excavation in the centre according to the size of the pipe required, put mortar in the concave sufficient in quantity to make the bottom of the pipe from three-quarters to one inch thick, and three feet in length. In this mortar bed a rod, made smooth and true, with a slight taper, about three feet long, when more mortar may be put on this rod, rounded up with a trowel, to correspond in thickness with the bottom; then carefully draw out the rod, spread more mortar for three feet more in the bottom of the groove as before, insert the end of the rod in the pipe previously made, bed the rod in the mortar, cover over and draw out again, and so on until the pipe is completed.

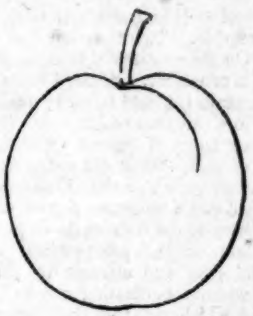
The mortar should be fresh mixed, a little at a time, so that the cement may set as quick as possible; mix one part of cement to two or three of *clean coarse sand.* If it contains some fine gravel, from the size of wheat kernels to beans, no matter. The thickness of the pipe should correspond to the amount of pressure it will be required to contain. If only two or three feet pressure is required, water may be admitted in two weeks; in three or four months, a pipe one inch and a half in diameter will bear a pressure equal to twelve or fifteen feet perpendicular. This pipe will grow stronger for a year, when it will be like a rock in solidity and strength.

These pipes are admirably adapted for carrying water from eave-trough spouts to cisterns, and for carrying water in any other situations where no very great amount of pressure is required immediately after they are made. Very frequently in placing hydraulic rams, a short lead pipe next the ram will overcome the greatest elevation, reaching a short distance to the top of a bank, after which, for a long distance, the pipe is nearly horizontal, and has much pressure to resist, when it may as well be made in this cheap manner of cement.—And for purposes of irrigation, when it is desired to convey water nearly in a horizontal direction, as from one reservoir or elevation to another, and where no very great amount of pressure will be required, the cement pipe is admirably adapted.—*Country Gentleman.*

SEVERAL PLUMS.

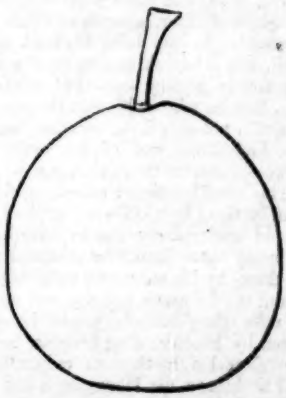
We give below, from Cole's Fruit Book, outlines and descriptions of three or four excellent plums. In some localities the tree and fruit seem to escape the combined attacks of curculio and black wart, which in others baffle all attempts of the cultivator to secure a crop. It is worth while, however, to persevere, as an occasional crop of so delicious a fruit will compensate for considerable care.

THE ROYAL HATIVE.



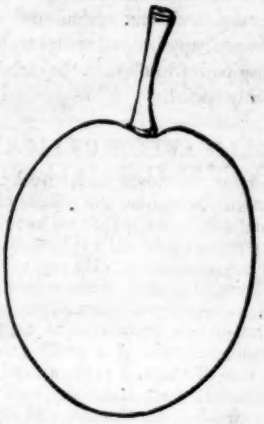
Medial; roundish, little widest towards the stem; light purple, dotted and streaked with dark yellow, blue bloom; stalk ½ an inch long, in very slight cavity; flesh yellow, tender, juicy, of a very rich, high flavor. Freestone. August 20 to September 5. Resembling Purple Gage, in appearance, quality, leaf, and growth, excepting wood is very downy. Three weeks earlier. One of the very best early plums. Hardy, vigorous and productive. French origin.

PURPLE FAVORITE.



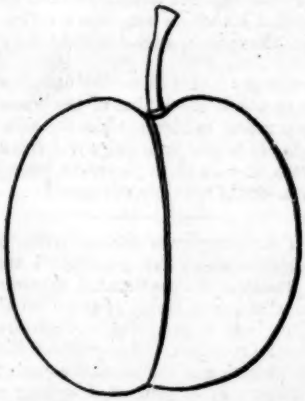
Rather large; roundish-obovate, no suture; light brown, brownish-purple in the sun, many golden specks, thin, blue bloom; stalk ½ to 1 inch long, in slight depression; flesh pale-green, tender, melting, juicy, sweet, and unsurpassed in luscious flavor. Freestone. September 5 to 20, (here.) More juicy and melting than Purple Gage. Hardy, and good bearer, with the dwarfish habit of the Green Gage. Origin unknown.

YELLOW GAGE.



Large medial; oval, tapering a little to the top, slight suture; golden yellow, well covered with white bloom; stalk medial size, in a small cavity; flesh yellow, melting, rich, and sugary. Freestone. 12th to 25th of August. The tree very hardy, vigorous, and good bearer; forms a large, spreading head. Mr. Henry Vandyne, a zealous fruit-grower of Cambridgeport, raised, in one season, 51 dollars' worth from one tree. The quality is superior to most plums of its season.

AUTUMN GAGE.



Large medial; oval, slightly ovate; pale yellow, thin bloom; stem two-thirds of an inch long, no cavity; flesh greenish yellow, juicy, of a sweet, delicious flavor. Freestone. Latter part of September. Hardy, very productive. This new plum flourishes well here, and promises to be one of the best late kinds. More profitable for the North than Coe's Golden Drop. Originated by Wm. Roe, Esq., Newburgh, N. Y.

AGRICULTURAL EDUCATION.

The readers of the *Farmer*, no doubt, regard us as a friend to education. Indeed so earnest have we been in advocating a higher standard, particularly of agricultural education, that we have occasionally received friendly hints that we were in danger of becoming an enthusiast on that subject. We have lost none of our ardor in the cause, nor has our faith in its ultimate success at all diminished. Our intercourse with farmers, and our knowledge of the rapid increase of agricultural books and papers in all parts of the country, assure us that the improvement of the mind as well as of the soil is steadily progressive. And we should rejoice could we believe that ought we have said or done has excited the desire or strengthened the purpose of improvement in a single breast.

We think it necessary, however, to caution the younger portion of our readers, particularly, against what we believe to be a great error in the common idea of what constitutes an education, and in what consists "the improvement of the mind." In New England, where education is popular, where schools of all kinds are common, and where learning is sure to secure a good degree of respect and honor, we apprehend there is danger of unduly estimating the importance of the cultivation of the merely intellectual faculties. The improvement of the mind is sometimes spoken of by our correspondents, as the only thing worth living for—the only source of happiness—the only earthly good, in such connections as to indicate that nothing more is intended than the teachings of the schools,—the attainment of scientific knowledge, and the refinement of the taste. That there is something radically wrong in this idea, is perhaps sufficiently proved by the fact that many return from the pursuit of such an education, to find with irrepressible bitterness that the home and occupation of their earlier years have lost their attractions, and that the knowledge which they hoped would cheer and enliven their toil, has utterly disqualified them for the enjoyment of a life so monotonous and laborious as that of the farm. Whether the picture of the home of his childhood, drawn on his return from college, by our correspondent "X. Z.," in a late number of the *Farmer*, be a fact or a fiction so far as himself is concerned, we believe that, with the alteration of a single word, he expresses the feelings of many a youth on going home from school:

> "How changed is the home of my childhood!
> No shade-trees, nor flowers, nor lawn,
> Nor stream with its grove and its wild-wood;
> And the joy of my heart—it is gone!"

And not only this, but in the dreary hours of his lonely room he may have read, that

> "To think, is but to learn to groan,
> To scorn what all beside adore,
> To feel amid the world alone,
> An alien on a desert shore,"—

and pondered upon such sentiments until he regards himself as necessarily one of the thinkers, and consequently bound to "scorn what all beside adore," and to regard his proficiency in doing so a test of his scholarship.

Better, perhaps, than that of any other man, does the life of Lord Byron show how little the cultivation of the intellectual faculties, alone, can add to the real usefulness or happiness of the individual. In the history of nations, too, we often find the highest cultivation of the head associated with the most deplorable rottenness of heart; the most sensitive taste with the most abandoned habits.

Something more than the "improvement of the mind," then, is needed. The moral as well as the mental powers must be developed. The mind may need improvement, but the heart needs it much more. Goodness is a far nobler object than greatness. Washington aimed at the one; Aaron Burr, at the other. And we refer to the history of their lives for a further illustration of the idea we wish to enforce. George Washington was born upon a farm, and entered upon the duties of life with but little education; Aaron Burr was reared in the atmosphere of a literary institution, at which he graduated with distinguished collegiate honors, at the age of sixteen. How far the character of each was influenced by the circumstances of his youth, we shall not attempt to decide. Nor shall we stop to inquire how it has come to pass that such expressions as "an honest old farmer," and, "lying like a lawyer," have gained currency,—for we are not at present writing an essay upon the subject; we design simply to give utterance to a few suggestions.

However these points may be settled, we believe it may be said with safety, that if the farm does not stimulate the mind to the greatest degree of activity, it preserves the morals from many of the temptations which beset the path of the student. The Hon. J. B. O'Neal, of South Carolina, in a late publication, speaks of the graduates of a college in that State in the most desponding tone. He says that he graduated in that college forty-three years ago last December; has been a trustee for thirty-seven years, and has watched over its interests with all the care of a deep and abiding love; and yet of all the students graduating from 1806 to 1845, one-fourth of the whole number have died drunkards, or are now drunkards—a shame to themselves, and a burden to their families! Yet drunkenness is but one of the vices to which young men are exposed when removed from the restraints of home, and exposed to the influence of such promiscuous assemblages as are found at academies and colleges. Our own somewhat familiar acquaintance with the students of two or three colleges in New England, had prepared us for the statements above made; and we fear that an equally honest history of any other college in our country would present results fully as unfavorable.

What, then, shall be done? The thought with which we would close this article is this:—Until institutions are established that shall combine the practical with the theoretical, and blend work with study, a home education must be depended upon, especially for farmers' sons. The common school and the fireside, the town and neighborhood library and lyceum, with the agricultural paper, and habits of mental application, are means of improvement, whose power to elevate the mind has never yet been fully tested.

SINGULAR EFFECT OF LIGHTNING.

A valued correspondent in Kentucky sends us a long communication upon the effects of lightning. His explanations do not satisfy us, but the following fact is very remarkable. His informant was an eye witness of the occurrence. He says:

One evening of a sultry summer day, about dusk or twilight, a company of laborers, and among them the narrator of this occurrence to us, took refuge from a thunder-shower in a small grocery in the country. One of them, a very wicked, dissipated man, purchased a flask of whisky, and swore that he was not afraid of the thunder and lightning, and would go home. He started, and when he had got thirty or forty paces from the house, a stroke of lightning darted down about the place where he was. As it was entirely dark, our narrator saw him by the light of the flash borne up several feet from the ground, but neither saw nor heard any thing more of him. When the rain was over, he gave it as his opinion that the man was killed by the lightning, and suggested that they should take a light and go and see. Sure enough, there he lay dead! On examining him, they found his skin unbroken, but every bone in him seemed to be entirely broken, or rather crushed to pieces—even his skull itself—so that his whole body was a soft mass! This is one of the most remarkable cases we ever heard of.

The mystery of this case—the unaccountable circumstance about it—is that of the bones being so entirely crushed to pieces, while the skin remained unbroken. How the lightning could enter the body and break them, and yet leave no trace whatever of the manner in which it was done!

THE FIRST EFFECT OF HEARING RESTORED.—It is amusing to watch the movements and to note the expressions of astonishment of some of those patients who are suddenly restored to acute hearing. This is most remarkable when the deafness has existed for years. The patients look around for an explanation of the unusual sounds they hear, and then the very movement of looking round rustles the dress; hearing the noise of which, they become quite bewildered. They cannot be brought to believe that the sounds they hear are natural. The noises in the street are at first terrific. A diverting case occurred in a short and remarkably corpulent old gentleman, residing somewhere at Pimlico. He related that on leaving the house in which his hearing had been restored, he bore it pretty well, until he got into Piccadilly, when the

noise of the omnibusses (every one of which he thought would be upon him) so frightened him, that he started off in a run and never stopped until he got into Green Park.—*London Paper.*

For the New England Farmer.

"COL. NEEDHAM'S ADDRESS."

MR. FARMER:—In your last paper you have an article with the above caption on our reciprocity treaty with our cousins in Canada.

Although I have a great respect for Mr. Senator Foot, who is my early and long-continued personal friend, and fully agree with him on his course generally, both as Representative and Senator in Congress, I cannot believe that he voted against the "Reciprocity Treaty" for any other reason than to comply with a resolution passed by the Legislature of Vermont, introduced for no other reason than party effect.

The Colonel is more poetical than practical when he talks of the effect of the treaty—that "labor in Canada costs little more than one-third of what it does in New England, that the soil is much more productive than the soil of New England," &c.—Take Lower Canada, or Canada East—commence on its western border and follow the St. Lawrence three hundred miles. With the exception of land on the Ottawa, above and below Montreal, the Richelieu at Sorelle, the St. Murice at Three Rivers, and St. Charles at Quebec, the whole country, with few exceptions, has a cold, unproductive soil, where the Colonel's "Durhams" would soon dwindle to small "Canadians."

In no part of New England can as poor soil be found. In fact, Lower Canada, as a whole, is greatly inferior to New England, in the productiveness of her soil.

It is true, that in many parts of Lower Canada labor is cheaper than in New England, but in such places they export little or nothing, and live mainly on pea soup to support their own dense population. The Lower Canadian, in many places, leaves his home regularly every season, works for farmers in Vermont and New York during the haying season, and returns in time to secure his own small crops. If the Colonel will make a personal examination among this class, he will find agriculture in a very primitive state, in *most* places, and that one New England man, with his improved machinery and tools at $2 per day, may be cheaper than the Canadian, with the tools he uses, at 50 cts.

In many places he will find the shoemaker, tailor or clothier unknown; he may find white or black sheep with wool of the coarsest texture, which is mixed, spun and woven in a very ancient manner, and the only fulling-mill known, a large trough, square at one end on, or in which the operator sits, and with bare feet *kicks against the cloth* placed at one end until fulled to a proper thickness. Will a Canadian girl, working in this manner, living on pea soup and receiving 6d per day, be likely to rival her Lowell sister who receives her dollar?

There are portions also of Lower Canada which present a different aspect. I am only describing *the only portions* where labor is cheaper than in New England.

Canada West, or Upper Canada, has a fine soil, but as a whole not superior to New England, and no part of it superior for growing wheat to Vermont, when our land was as new as hers. Here may be found all the elements of New England society, and labor is at a premium quite as high as in New England.

Let us look at the practical effect of the treaty. We exported of articles enumerated in it to Canada in 1855, $7,725,572 35; of this sum, $2,711,953 90 was for grain. On this amount the duties under their last tariff would have been $373,273 33 saved our citizens by the treaty.

I have no time to extend these tables; but if you choose to spare a column of your paper, I will, as soon as I can find time to prepare them, send you full tables of our trade with Canada; exports and imports, duties, &c. This must convince any one that liberality is the best policy, and that our Canadian trade is in *favor*, and not opposed to the true interests of the farmers of New England.

For near thirty years a portion of my business has been, and still is, with Canadians; I have been three or four weeks yearly among them. During this time there has been a complete revolution, both in their feelings toward us and in business intercourse, and though Canada may be a small place, "away up north," but little larger in territorial limits than the whole United States, exclusive of California, their markets may be worth looking after by New England. CHAMPLAIN.

Burlington, Nov. 3, 1856.

REMARKS.—Send us the figures, Mr. Champlain; we believe they always tell the truth, except in election returns. It is best that there should be no jealousies between us and our Canadian friends, and a statement of the facts in the case may produce the most amiable feelings.

TO KEEP CELERY.

Many, especially amateurs, experience much difficulty in keeping this delicious vegetable during the winter. Where it has been grown in beds, (as it always should be in small gardens,) nothing more is necessary than to cover it as it stands with a good thick coat of coarse manure; and it can then be dug at any time during the winter when it may be wanted. Where it has been grown in single trenches, it should be taken up and placed in a bed prepared as follows: Dig out the earth two spades deep and of any convenient width; lift the plants from the trenches with the earth adhering to the roots; put in a row of plants three or four inches apart, and throw some earth against them; then another row six inches from the first, and so on, filling in the earth to the tops of the plants as you go along. When all the plants are in, cover the bed with a thick coat of coarse manure, straw, or litter of any kind; manure, however, is to be preferred. From such a bed the plants may be dug at any time during the winter. The bed may be made of less depth, but the plants will not keep as well unless the winter should prove mild. It is best, however, in all matters of this kind, to be prepared for the worst. It is not always, however, pleasant in winter to dig celery from a bed out of doors, and if a cool, airy cellar is at hand, the plants may be kept in good condition by placing them upright on the floor, and covering them with earth or sand, as directed above.—*American Agriculturist.*

THE WONDERS OF INDIA RUBBER.

Among the recent applications of India Rubber none are so remarkable as the manufacture of what is called "Hard India Goods," into which the rubber enters most largely. There is in New York a company called the Beacon Dam Company, which is devoted to the manufacture of this class of goods. By a process that originated with Mr. Chaffee, coal tar is mixed with the rubber, and the compound makes one of the most solid, elastic and elegant articles that can be found in the market. It resembles polished stone, is as black as coal, needs no finish, and has of itself as hard and exquisite polish as it is possible for any metal to bear. There seems to be no end to the articles to which it can be made. Canes of the most elegant form are made of it, and are as tough as so much steel, while they have all the elasticity of whalebone.—Cabinet work, inlaid and mosaic, ornamental to the parlor and the chamber. Spectacle bows and glasses for the eye are made so light as to be no annoyance, while their elastic character causes them to sit firm to the head; opera glasses, castors, sand stands, ink stands, brushes for the hair, that cannot be harmed by hot water, tape lines, pen holders, pencil cases, cigar cases, government boxes for the army and navy, government buttons, and an endless variety of articles are thus made, and the articles are of a most elegant character; syringes of a novel form and character; machines for oiling cars and engines, on a new principle, indicate that this new use of rubber is to work a complete revolution in the arts and manufactures.

But one of the greatest applications of this new rubber manufacture is the new telegraph wire that is made from it. It needs no poles, as it is laid in the ground. Is needs no covering; a trench of a few inches is dug; the rubber telegraph wire is put in and covered up; the wire is enclosed with the rubber; no dampness can effect it; no storm render the wires inoperative; no insect sever; no rust corrode. It would appear fabulous if we should state the miles of this wire that have already been engaged, and the goods cannot be made to meet the demand.

The government of the United States is now the best customer of the Beacon Dam Company. The call for the Navy and Army button is immense; the article is elegant; the naval button has on it the motto, "don't give up the ship." And so tough are these rubber bottoms, that if one is placed on an oak plank and pressure applied, it can be sunk clear into the plank, and will come out unharmed; and the government shaving boxes, which are about three inches in diameter, are so strong that a man weighing 200 pounds can press his whole weight on one of them, and not break them. Gun handles, sword handles, and other military implements, are constructed from this material. They are cheap, elegant, enduring. —*Boston Journal.*

FOR THE HICCUPS.—Travelling some time since by railroad from Columbus to Baltimore, I took my seat immediately in front of a gentleman who was suffering under a paroxysm of hiccups, to a degree that I had never before witnessed. In a few minutes a person appeared from the end of the car and took a seat beside him, when he said: "Sir, can you tell me what is good for the hiccups? I have been afflicted in the way you see me since yesterday noon, and had no rest or relief from any physician to whom I applied for assistance; I am worn out with suffering." To whom the person replied. "Sir, I will cure you in less than two minutes by the watch.—Have confidence, for I am sure I can do it. Hold up high above your head two fingers of the right hand; lean back in your seat, open your mouth and throat so as to give a free passage to your lungs; breathe very long and softly, and look very steadily at your fingers." In less than the time specified the cure was performed, one hiccup only occurring during the trial. The patient could not express his gratitude, while the practitioner only extracted from him as a fee the promise that he would extend the knowledge which he had imparted as freely as he had received it, assuring him that he would never be disappointed in the result. We were all struck with the fact. Since then I have often had occasion to practice upon patients in the same disorder, and never without the most signal success.—*Water Cure Journal.*

NEW FEATURE IN THE SUGAR TRADE.

The New York *Tribune* of the 18th inst. has the following communication in reference to the sugar trade.

The recent general enchancement of the current prices of sugars, though stimulated and swelled by speculation, has a genuine basis. In the first place, there is an increase of several per cent. in the population of the civilized world within the last quarter of a century, insuring a like increase in the natural demand for sugar. Then it is not doubtful that, in the general absence of wars, the proportion of people able to purchase and consume sugar and other luxuries to the extent of their desires, has likewise increased. It is further true that the general manufacture and use of preserved fruits, &c., is rapidly increasing.—But the successive failures of the grape for several years past has led to the diversion of the beet crop of France—which is very large and important—from the production of sugar to that of brandy—the French brandies, formerly made of the juice of the grape, bearing a reputation and a price throughout the world which render this conversion highly profitable. Hence France, which from Napoleon's coronation to Louis Philippe's dethronement had been steadily advancing toward the point of producing her own sugar, has recently been falling rapidly back to a position of dependence for her supply on the tropical, cane-growing Indies. It is understood that the production of sugar in the British West Indies has fallen off since Emancipation—the liberated negroes finding employment more to their taste than the severe labor of the cane-field and sugar-mill—though in British Guiana the production of sugar has recently been and is still rapidly increasing. California and Australia have had some part in producing the general result—those countries producing little or no sugar while consuming largely, and at the same time increasing the world's supply of bullion, and thereby enchancing the prices of nearly everything but gold.

It is clear that the annual production of sugar must be increased—but where? and how? The severe cold of last Winter destroyed a great deal

of cane, and practically diminished the area of tropical cane-growing soil. India and the adjacent regions of South Asia might produce more sugar, but their people are very slow to change the direction of their industry, while those of Spanish America have little industry, of any sort. There is more sugar land in the West Indies, but it is mainly wildnerness, which can only be converted into cane-fields at heavy cost and by severe labor —of course, quite slowly.

In view of these facts, inquiry has very properly been made for saccharine plants adapted to the temperate zone, and which may be profitably employed in the production of sugar. Until some plant of this sort is found and extensively cultivated, it is not probable that the price of sugar, as measured by that of wheat, beef and other edibles, will be essentially reduced. With the prospect of an active demand and a high price for sugar through several years ahead, it seems but reasonable that the sugar-producing area should be enlarged, if that be fonnd practicable..

THE REFUSE OF GAS-WORKS.

We direct attention to a valuable contribution from the Chemist of the Highland Society, which we have extracted from the Transactions, regarding the refuse of gas-works. The amount of that valuable fertilizer, ammonia, which is yearly lost to the country from means not being taken to manufacture the sulphate of ammonia from the ammoniacal liquid in the smaller gas-works, appears to be very considerable. We are cognizant of the fact that the liquid from several gas-works was at one time, and, for aught we know, still continues to be, turned into the nearest stream, or carted, as in one or two cases that have come under our own notice, to the sea, and for a time creating a nuisance from the offensiveness of the smell. Those farmers who can obtain this refuse, gas water and lime, should mix it up with earth, and thus form composts. The liquid may be applied to manure heaps, when these are formed away from the steading, the offensiveness of the smell preventing its being applied to the cattle courts.—The rise which has been established by the agents of the Peruvian Government, Messrs. Gibbs, of £2 per ton on Peruvian guano, makes the conservation of all products containing ammonia of more importance, ammonia being, as our readers are aware, the most valuable constituent of Peruvian guano. The importer's price of guano is now £11 5s.—former price, £9 5s. Besides the ammonia lost in the liquid of gas-works, there appears to be a large amount which passes off with the gas, and is consequently lost. Dr. Anderson, in this paper, estimates that by a process which is patented for the purifying of gas from the ammonia, a manure representing 30,000 tons of sulphate of ammonia could be rendered available for manure. This quantity, taken at the selling price of sulphate of ammonia, £18 per ton, is equal to £540,000.—Taking one cwt. of the sulphate to represent six bushels of wheat, this sum would be doubled.—*N. B. Agriculturist.*

FIX YOUR GARDENS IN THE FALL.—Perhaps you desire a new garden next year. If so, drain the ground, then cart on a large quantity of well rotted manure, and plow it, and sub-soil it, to the depth of two feet or more. Then you may begin to lay out the general features of the garden. Do a large portion of the work soon. There is much more time to do work in autumn than in the spring. The winter, too, will soften the ground, and kill a great many worms and insects, and you can begin your garden work much earlier next season.—*Ohio Farmer.*

For the New England Farmer.

MILK PRODUCE.

MR. EDITOR:—Your commentary on Mr. Horsfall's management of dairy cattle, their feed, products, &c., has "set me to thinking," that it takes at least *thirty-three per cent.* more milk in England to make butter, than it does with us, to say nothing of those remarkable animals in your county, four quarts of whose milk will yield a pound of butter. The instances you cite go to show that it takes there, on an average, 14 quarts of milk for the production of a pound of butter. I had supposed that 10 quarts of good milk could be relied on to produce a pound of butter. How do you explain this great difference? Does it arise from the feed they use? Or is it from the different character of the animals? If a difference of one-third in quantity can be brought about by a change in the manner of feeding, this is important to be known by those who retail their milk, and perhaps where they leave it, it will save the trouble of an *extra halt* at the pump, on the way to market.

November 15, 1856.

REMARKS.—The subject here introduced demands a more careful consideration than we can give it at this moment; but we may say now, that the quality of butter depends in a great measure upon the *kind of food* fed to the cows. There is a marked difference in the pasture grasses. Old, mossy pastures will not produce butter at all to be compared with butter produced from grasses grown on new land, where there is a variety of grass, including clover, red-top and herd's grass. A good deal of butter that is made well is of a negative quality, that is, it is not strong, or soft, or white, but has no particular flavor, so that it puzzles you to know whether you are eating butter, or something else having a remarkable resemblance to it. This matter needs more attention.

For the New England Farmer.

MARKET FAIRS.

We have more than once heard the inquiry, why cannot such fairs be holden monthly, in each of the principal counties of the commonwealth. For instance, at Worcester, at Topsfield, at Dedham, &c. &c. Such an arrangement would be eminently serviceable to those who have animals or articles for sale; and equally beneficial to those who wish to buy. We wish some of those who have witnessed the benefits of such fairs in other counties, would favor the public, through the columns of the *Farmer*, with their experience.

CAUSE OF COLIC IN HORSES.

I shall now offer some brief remarks on the *cause* of colic. If we could only stretch the imagination, so as to take for granted all the popular causes assigned for the production of colic, then their name would be legion. Some writers inform us that a drink of cold water, when the animal is heated, is the most potent cause; then we must infer that the horses ridden by the Russian Cossacs, (fast fellows,) in a country where cold water is abundant, should be the subjects of colic; but the very reverse is the case; the disease is almost unknown among them.

Previous to the introduction of Cochituate water into the city of Boston, colic occurring among horses was partly attributed to the *cold, well* water then used; but now they all drink the former, yet colic is just as prevalent, and indeed more so, than at the time referred to.

There are no people that pay more attention to the watering of horses than the English grooms, and it is customary when a horse is taken from his home to a distant race-course, to remain away only a few days, sufficient water is transported with him to last during his stay. Such a dread have English grooms of *"strange water,"* as they term it. Now, it is a notorious fact, that the English horse is more subject to bowel affections than those of this country. From this circumstance, I infer that bowel affections are hereditary, or in other words, a predisposition to such is transmitted from parents to offspring.

I can well remember the time when physicians would not allow a fever patient to taste water; but now they act more in accordance with reason, and allow the sick just what they crave for.

It is not good policy, however, to allow a horse, when performing a journey, a bountiful supply of water, because active exercise somewhat suspends the digestive function, and therefore the water may remain in a portion of the large intestines without undergoing the usual transformation; it then occupies space, and being weighty, may, in the rapid movements of the animal, operate unfavorably in various ways, more particularly on the gut itself; it being pendulous from the spine.

A horse is often brought into the stable in a state of profuse perspiration, and, of course, is somewhat exhausted. Now, it would be decidedly wrong to either feed or water him, until he be rubbed dry, and has rested awhile; for at such times food is just as likely, and I think more so, than water, to operate on an exhausted animal.

Many horses, however, even when in this exhausted state, will fill their stomachs with food and water, and yet enjoy immunity from colic. Therefore, should colic occur in a horse after he has had a hard drive, he having partaken of a draught of water, it is rather difficult to decide which of the two, if either, was the cause of the malady. One fact is certain, and that is, the stomach is deranged and therefore fermentation precedes digestion, hence the gas.

Notwithstanding our best efforts to prevent it, colic will occasionally occur. Green grass, clover, carrots, and turnips, are said to occasion it. Then, again, it appears in stables where nothing but corn, oats and hay are used. One horse is attacked immediately after a draught of cold water, another has the chill taken off his, yet he is often found in the same predicament. Warm water is the most insipid and nauseating drink that you can offer a horse; and many would prefer to continue thirsty for some time ere they would imbibe it.

Time will not allow me to notice other popular theories regarding the cause of colic, but I shall, in a brief manner, offer a more rational view of the subject.

It is well known by physiologists, and I presume many of you must have observed, that both men and animals inherit peculiar temperaments, or conformation, to certain forms of disease. This peculiarity, or pre-disposition, is said to lurk in breed, and those conversant with the horse's structure and temperament, can readily determine whether he be predisposed to certain forms of disease or not; for example, a horse predisposed to flatulent colic is often observed to have a capacious belly, voracious appetite, and does not properly masticate his food, and he is not over particular as to the kind of diet, for we often find him devouring, with apparent relish, the filthy straw that has served as bedding. Often he proves to be a *"crib-biter,"* (cribbing is a defect, either inherited or acquired.)

Ordinarily the salivial fluid is augmented, yet it does not look healthy, it is more like soap-suds, and of a dirty color; the tongue is also foul, and the breath somewhat fœtid. One or more of these peculiarities generally predominate in colicy horses.

I contend, therefore, that some horses are predisposed to colic, and this explains the reason why, the ordinary exciting causes, such as cold water, exposure, fatigue, irritating food and medicine, are operative on the system of one horse, and inoperative on that of another. Colic is the heritage of some of the best horses in the world.

Now should you ask, what are the causes of colic? I answer, it is occasioned by predisposing direct and indirect causes, operating conjointly or not. Should you also desire to know, what is the state of the digestive organs at the commencement, I would inform you that their function is either disturbed, or partly suspended.—*Dadd's Veterinary Journal.*

For the New England Farmer.

THE RACE-COURSE AT CATTLE SHOWS.

MR. EDITOR:—I am very glad to see in the last number of the *New England Farmer*, that one of your correspondents has called the attention of its readers to this subject. Before reading that article, I had written the following.

Within a few years past, a new feature has been introduced at these annual festive days of the steady farmer of good old Puritan Massachusetts. I refer to the introduction of the race-course—trotting-course, or by whatever name they may go by.

Is it not strange, Mr. Editor, what simply changing the name of a thing will do, presto—black is white, and vice versa—ergo, the oft repeated question—what's in a name? is finally answered. How satisfactorily I would not pretend to say.

I really do not like the introduction of this new "notion" as one of the parts in the programme of our agricultural fairs. There is, no greater lover of that noble animal, the horse, than I am. He is my every-day companion, and is without question, one of man's greatest blessings, and I delight to try his

speed now and then. But the question with me is, whether this "new thing" is going to operate favorably or otherwise on our agricultural shows? I am well satisfied from what I have seen of its operation thus far, that this part of the "performance" will have a bad tendency and work ultimately to the injury of our fairs. I shall be most happily disappointed if they do not. There is a strong sympathy and love existing between mankind and the horse-kind. He must have a small soul and a hard heart, who does not love the horse; and this attraction of "interest" will develop itself more and more in this direction, just in proportion as the societies give prominence to the "course," to the detriment of other and more important interests of the farmer; for whose special, not exclusive, benefit, these "shows" are held.

If the "course" is continued, I fear that we shall find it absorbing nearly every other interest. Was not this the case at the United States Show in Boston? Verily it was. Compared with these latter, all others were but a speck of that vast congregation—and so on from beginning to the end. The reason of this, I have already stated. There is scarcely another domestic animal to which mankind are so strongly attached as the horse, and well he may be, for there is hardly another that administers more to man's health, comfort or enjoyment. What would you do? I answer—so far as our agricultural shows are concerned, I would have them confined within the circle of the generality of farmers' productions and pleasures. Horse-racing and trotting is not legitimately one of these. Perhaps there are few who agree with me in this, but I think not. If my "article" only produces a little *thinking* on this important subject, its object will be accomplished.

King Oak Hill, 1856. T. Q. Norton.

For the New England Farmer.

APPLE TREES FOR A LARGE ORCHARD --STOVES AND FUEL.

Mr. Editor:—As your paper seems a medium of conversation for farmers in particular, and everybody in general, I wish to avail myself of the use of its columns to ask a few questions, and make a few remarks and suggestions on various subjects. I am thinking of setting an orchard the present year for the purpose, in part, to raise apples for stock—and I desire to know what varieties to select for this purpose, and also for market, in seasons when apples are scarce, and will pay the expense of transportation. Living as I do some ten miles from the railroad, I have marked the following list of 2000 trees, and I wish to inquire of those more acquainted with the business, if any important alterations should be made in this list? My farm is better adapted to fruit-growing than anything else. Baldwins do the best, and keep two months longer than those raised in Massachusetts.

List.—Baldwins 1200; R. I. Greenings 300; Northern Spy 200; Roxbury Russet 100; 1800.

Miscellaneous.—Red Astracan 50; White Juneting 20; Danvers Winter Sweet 10; Talman Sweet 10; Ladies' Sweet, 10; Early Sweet Bough 10; Northern Sweet 10; Williams' Favorite 10; Porters 10; American S. Pearmain 5; Nodhead 5; Detroit Red 5; Red Canada 5; Fameuse 5; Holland Pippin 5; Gravenstein 5; B. Gilliflower 5; Hubbardston Nonsuch 5; Thompson's Co. King 5; Norton's Melon 5; Sopsavine 5; making 200 1800; total, 2000.

The Early Harvest and Prince Yellow Harvest do not thrive well here. The Summer Harvey does much better. What of the Early Bloomfield and the Carter apples?

I observed an article in your paper in relation to winter pears; that there is no such thing as a winter pear. If this is so, the public should be undeceived in regard to it. I recently purchased at different times and places, 400 or 500 pear trees, some of which were advertised to keep till June, as the Episcopal and Easter Beurre, &c. I wish to be advised in regard to the facts in the case. How is it with the Concord grape? Some denounce it as a humbug. I never have seen a grape worth cultivating in the open air in this latitude. I submit these questions at the present time, as winter affords sufficient leisure for the investigation of the subject.

Speaking of winter, reminds one of the necessity of having a good stove—if he must use a stove. By the way, which is the best farmer stove? And speaking of stoves reminds one of the necessity of having plenty of fuel to make a fire therein. There are instances where circumstances preclude the possibility of having dry wood for the winter, as when a man takes possession of premises late in the spring, or in case of sickness. I this case it is much better to go to the woods in the month of June and select trees 6 or 8 inches in diameter and slort them down, letting them lie for the next winter's fuel—the leaves serve as evaporatives, and the wood will be much better then when corded up in the woods. Honestus Stearns.

Windsor Co., Vt., 1856.

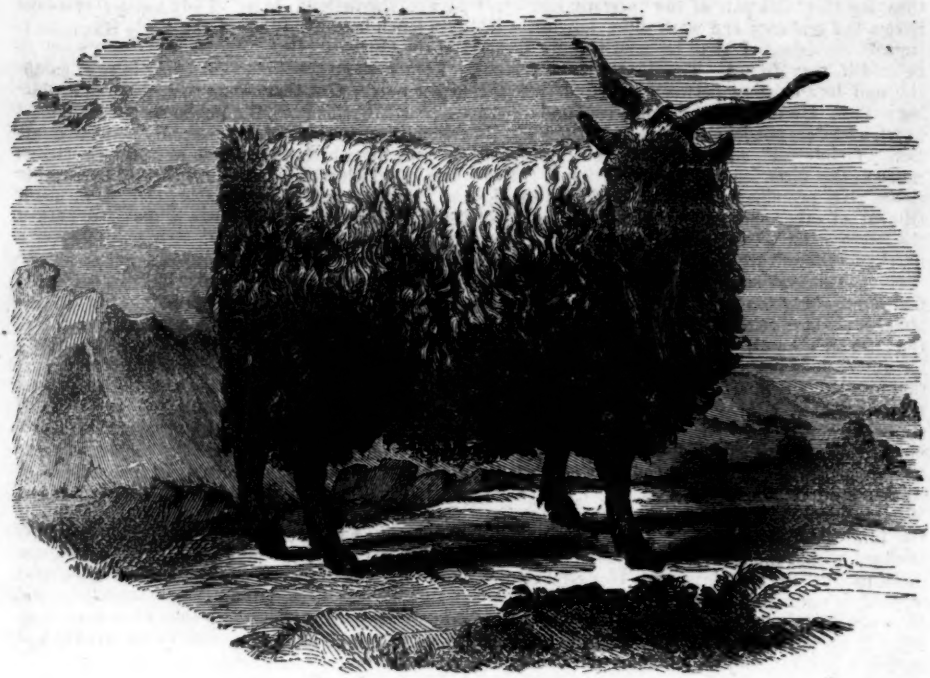
Remarks.—Trees of the same variety do not flourish equally well in different localities, and on different soils. In one town, for instance, the R. I. Greening will afford a fair profit, while in the next it never yields well. The Northern Spy has not yet been sufficiently tested in New England to justify an assertion that it will be valuable. Having seen and eaten the Concord grape for three or four years, we feel safe in saying that we believe it a valuable acquisition to our list of fruits.

For the New England Farmer.

TRAVELLING COMFORTS.

After all comforts are provided at home, it is pleasant sometimes to go abroad and visit our friends; hence we should be provided with good robes of fur, or other material, to keep us warm,—and as buffalo robes are getting scarce and dear, let us see if we cannot find a substitute. Suppose we try good, strong India rubber cloth, and lining it up well with nice printed bocking, stuffing it with woolen flocks, or cotton batting. Well, how do you like it? Is it not nice, warm and comfortable, and cheap withal, and perfectly impervious to water on a wet day? A buffalo robe, after being exposed to a smart shower, becomes soaked and is a nuisance. H. S.

Windsor Co., Vt., 1856.



MALE CASHMERE GOAT.

CASHMERE GOAT.

These animals were introduced into the United States from the East, in the year 1849, by Doctor J. B. Davis, of South Carolina, from whom I purchased, in the year 1853, the entire flock of pure bred females, with the exception of the one owned by Col. Wade Hampton, of South Carolina; one sold by Dr. Davis to Mr. Davenport, of Virginia, and one to Mr. Osborne of New York. The flock now consists of twenty-five head, excluding the three pure bred females above enumerated, and several bucks owned by gentlemen in Tennessee, Georgia and South Carolina, who are breeding grades, by crossing on the common goat.

A great many opinions having been expressed not only as to the particular variety to which these animals belong, but also as to their value, and adaptation to the different sections of the Union, they are now presented to the U. S. Agricultural Society, in order to elicit an opinion from the distinguished stock-breeders and members present.

That they are not the "Thibet Shawl Goat," is proven by their dissimilarity to a specimen of that breed in possession of the subscriber; the latter variety having only an under-coating of a few ounces—which portion of its fleece is alone valuable.

Works on Natural Science show that they are not the common Angora Goat of the Province of that name, in Asiatic Turkey, as that animal is of varied color, with a fleece of indifferent value.

They have become known as "Cashmere Goats," from the pure white color and fineness of their fleeces, and their undoubted Eastern origin, having been characterized by America's celebrated Naturalist, the Rev. Jno. Bachman, D. D., as "the most valuable variety that can be introduced into our country."

The animals on exhibition consist of

No. 1, a pure bred buck kid, yearned 20th February last.

No. 2. a pure bred buck kid, yearned 18th May last.

No. 3, a pure bred buck kid, yearned 20th May last.

No. 4, a buck kid, yearned 23d May last, ¾ Cashmere, ¼ Common, showing the third cross of the Cashmere on the native goats of the country.

No. 5, a buck kid, yearned 23d May last, ¾ Cashmere, ¼ Common, showing the second cross.

No. 6, a yearling ewe, half breed Cashmere, showing the first cross. The mother of this specimen being a common blue goat.

FEMALE CASHMERE GOAT.

The fleeces of the matured bucks weigh from six to seven pounds. Ewes yield from three to four pounds. The flesh of the crosses is superior to most mutton, tender and delicious, making them a desirable acquisition to our food producing animals.

The ease with which they are kept, living as they do on weeds, briers, browse, and other coarse herbage, fits them for many portions of our country where sheep could not be sustained to advantage; whilst their ability and disposition to defend themselves from the attacks of dogs, evidence a value peculiar to this race of animals.

They are free from all diseases to which sheep are liable, hardy and prolific; and experience has proven that they readily adapt themselves to all portions of the United States.

Atlanta, Georgia. RICHARD PETERS.

APPROPRIATE DRESS.—A lady correspondent of the *Prairie Farmer*, closes a very sensible and lively description of the Mississippi Valley Fair, held at St. Louis, with the following remarks:

"We wish, too, that ladies could learn that rich silks, delicate bonnets, fine embroideries, and expensive shawls, are out of place at a Fair Ground; and particularly disgusting are skirts, trailing three inches in the dirt, wiping up tobacco spittle, filth and dust in their costly folds. Wisdom will come by experience, and those who lost veils, breast-pins, watches and purses, will not lose them in fifty-seven."

CHERRY STONES.—J. C. Holmes, after stating the well known fact that cherry pits must be buried while yet fresh, said that he planted them at once, spreading tan-bark over them if the season was dry. The following spring they came up through the tan-bark, and do much better than if planted in spring. To which we may add, that if cherries are planted in the autumn, with an earth covering merely, a serious difficulty often occurs, in the hard crust formed on the surface, through which the young cherry plants find it sometimes impossible to penetrate. The tan-bark obviates that difficulty—finely pulverized stable manure, and perhaps peat or leaf-mould, would do the same.—*Country Gentleman.*

BIRDS.—The editor of the Canada *Farmer's Journal* says, that, aside from the invaluable service of birds in keeping injurious insects in check, they amply compensate the farmer for their share of his grain and small fruits, by eating the seeds of weeds that are allowed to mature, and that those sportsmen who shoot the birds in his fields, are entitled to the same respect as is due to those who rob his hen-roosts.

FOOT ROT IN SHEEP AND CATTLE.

A. B. Dickinson, of Steuben County, New York, delivered an address some two years ago before the Courtland County Society, in which, among other things, he spoke of his mode of curing the foot rot in sheep, and foul in the feet of cattle. He said, "I have had some experience for twenty-five years, with what I once considered as one of the most injurious diseases to cattle, and more especially to sheep. I now regard it as of little consequence, and I will trouble you with one of twenty-five years' operation, and to that end will take the year in which the disease was most malignant, which was in 1850. I purchased in that year more than 30,000 sheep and not less than 1,000 head of cattle upon my farm. During the pasturing seasons more than one-half of all my sheep were affected with the rot, and because they were thus diseased, I purchased so largely. Men came all the way from Ohio to sell me their sheep, expressly on this account. My remedy is simple and plain, and my cure equally sure. I fenced a three-cornered field, and at the pointed corner I made a lane. In this lane, or neck of the field, I set a trough twelve feet long, twelve inches deep, of the same width, in which I fasten some scantling, substantially flaring out, then cover the scantling with boards, so that only one sheep or steer can go through the lane at a time. In a trough I place 50 or 100 pounds of blue vitriol, fill and keep it as full of water as it should be, covering the liquid over with straw, and set the sheep or cattle marching through. By leading a tame ox, the rest will follow. A good shepherd-dog will drive through 10,000 in one day. This vitriol will kill the disease. It makes or replaces hoofs, or parts that have rotted of.—*Mich. Farmer.*

For the New England Farmer.

AN ANSWER TO "POOR FARMER."

MR. EDITOR:—In the articles which I have written for the *New England Farmer*, I have always endeavored to have the truth as their basis, either what my own eyes have seen, or ears heard; well knowing that anything to be of value, must have this for its foundation, or it is worthless for all the practical purposes of life. If I were to indulge in fancy, it would be much easier to make out a case; but then, what useful purpose would be served thereby? I hold that no man should write for a public journal, unless he feels the responsibility of what he says, and holds himself accountable for its truth.

I am not, in the strict meaning of the word a farmer, but am engaged in the active duties of one of the most laborious professions. But from my earliest recollection, I have been passionately in love with old mother earth. I admire her for her great and varied beauties, and her kindness in supplying the thousand wants of man, if only kindly treated. In fact, I believe this world to be a most glorious and beautiful one; every way adapted as the dwelling-place for an immortal, intelligent being; full of wonder and delight, she is a book to be studied with ever increasing pleasure. My highest ambition since I have acted for myself, and been obliged to rely upon my own efforts, has been to be the owner of a farm. My reasons for this, have already been published in the *Farmer.*

For the first ten years of my professional life, my whole farming operations were confined to less than one acre of land, and for the past five years, to about two acres. But on these two acres I pretend to show what can be done on a more extended scale, and to deduce from my management of the same, what can be accomplished by every farmer in New England. At a future time, I propose to give the readers of the *Farmer* the management of a two acre farm, with some of its products, though but imperfectly cultivated to what it might be, as most of the work is done by myself and two young lads, the oldest not yet fourteen. In this communication, I purpose to answer the "query" of "Poor Farmer," "By what course you have arrived at that position in life, which you seem to have attained?" In order to do this satisfactorily, I may, perhaps, be permitted to give a rapid sketch of my personal history, and if, in doing this, the answer is not fully given, it must remain unanswered. My father, before his death—which occurred when thirty-seven years of age—was a man in easy circumstances; but a long sickness, and a wife and four young children, exhausted his means, and my mother at the age of twenty-eight found herself a widow without resources, and four dependent children, the youngest not a year old; the writer, the next, between seven and eight. I may safely say, that I cannot remember the time when I was not obliged to work, though at this period of my life I perhaps relished work as little as any boy of that age, at the present day. But work I had to, like or dislike; and I have yet to learn that it was not a benefit to me. From the death of my father until fourteen, my work was first closing shoes mostly; sometimes, in the summer season, riding horse to plow at six cents a day, and dinner found; which I have done many a day. When ten years of age, I was put to learn the trade of a shoemaker, which I accomplished thoroughly, and at the present time, under a sufficient stimulant, I presume I could cut and make a respectable-looking boot or shoe, either sewed or pegged, though I have not tried my hand at it for nearly twenty-five years. During these seven years I had attended school but irregularly, though from no fault of my mother. I knew a little of reading, writing, spelling, and not but a little of arithmetic. These were the only studies, except mischief, which had occupied my attention; but those of my friends now, who remember me as a boy, give me the credit of being the most expert at the latter occupation of anything they remember about me; though with equal frankness they say I was never a bad boy. But fun I was bound to have, one way or another. At about nine or ten, for two seasons I went as cook or cabin boy on board a lighter or sloop, and before twelve years went by, I was for five months prostrated by a severe typhus fever, and more than once given over to die; but a good Providence had other purposes for me to accomplish, and so I have continued on until the present time. I have lately been suddenly prostrated by a severe illness, after a period of nearly twenty-eight years, but by a very different disease. For did you ever know of a person having a severe typhus fever but once? My late illness brought very visibly and forcibly to my mind my old sickness; and not a week since, I was conversing with my mother in regard to the same, and comparing the state of my mind in the last with the former illness. She tells me that at no time could I be made to say but what I wished

to die, and perfectly willing to die; and in the last the same feeling and desire was constantly present, my only regret being the leaving of a young and dependent family. I do not mention this as being any particular psychological feature peculiar to myself, but in a large experience for sixteen years past, among the sick and dying, I have very seldom met with this state of feeling, even among those whom I had supposed decided and exemplary Christians. I cannot remember the time but the thought of dying produced a feeling of pleasure; and yet, few, I think, relish life and its pleasures more than myself. To die is not painful, as most suppose; and allow me to say, that my professional education and experience has but confirmed my views of death. I will not stop to explain, or give my reasons for this opinion.

From this digression I start at the age of fourteen. The previous fall and winter, I worked at shoemaking with the intention of going away from home to school in the spring, paying my mother a small sum each week. I found myself in the spring of 1833 with about fifty dollars ahead. What put this notion into my head, it would be difficult to tell, but there it was. With a light heart and a strong hope, and no particular object in view, I started for Boston, and took the stage for Wilbraham Academy. Stopped at Worcester over night, and the next day was landed at the academy boarding-house,—a ride of only three or four hours now. Until this time, I had had little taste for books or learning of any kind. I was most fortunate in being placed under one of the best teachers that celebrated school ever had, a Miss Hyde. Even now I remember her mild but firm countenance as if it were but yesterday. Under her training, and that of its present principal, I made rapid progress in the usual English branches of study, and left at the end of six months, fully resolved to obtain an education. That resolve has been faithfully carried out. This was the grand turning point of my life, and whatever I have since done, or now am, I owe to the six months spent at that school. While there, I formed the friendship of a wealthy young man from the central part of this State, with whom, and in whose family, I spent the next five years, working a little at my trade, and pursuing my studies with all the energy and enthusiasm of my nature.

The last three years of the five I spent with my friend at a distinguished school some ten miles from Boston; and to its principal at that time, I owe now a debt of gratitude. While there, I had more than accomplished the usual studies required to enter college, but for the sake of economy, preferred not to enter, though fully intending to do so in the junior year. At about this time, a very intimate friend, though much older than myself, a clergyman, now settled in the western part of Massachusetts, removed into New Hampshire for the purpose of studying theology at an institution located in the town of G., at the same time urging me to avai myself of the economy of living there and informing me of the superior advantages offered for study at a celebrated academy in the town. Having been an assistant teacher in a former institution, I now had little trouble in paying my way by the use of my brains, instead of my hands, though I used each as became the most convenient. Here I spent nearly a year, when, by chance, I was offered a situation in the city of New York, with a fair salary. Up to this time, I had formed no definite plan for life's duties. Contrary to the advice of my friends, I at once resolved to accept the offer, and immediately left N. H. for that city. The idea of living in a large city was particularly fascinating to my young brain. This caused me to abandon the idea of going through college, and for the time spent here, little was given to the study of books. It proved one of the best schools I had yet attended, although its lessons were of quite a different character from any I had heretofore given my attention to. At the end of two years, I got tired of the city, and my old studious habits returned. While here, my twenty-first year had come and gone, and I began to think it high time to have some settled purpose for life; but before coming to any definite course of action, I had the offer of a select school at a liberal salary in the eastern part of the Old Dominion. Without much consideration, I accepted the offer, and at once took passage for Philadelphia, passing through Baltimore, on to Washington, and spent my first week in the Federal city. My first evening was spent in the Senate of the United States. The Eastern boundary question occupied the attention of the country at this time, and the public mind was in a high state of excitement as to the course Congress would take on this important question. I remember perfectly well the speech of Mr. Webster at this evening session. On the next day, however, the very gist of this short speech was explained in quite a different way from what the "Thunderer" delivered himself the evening before, or else my ears and eyes were both at fault. At this visit I had an opportunity of seeing and hearing most of the great men of the country, which at that time composed the Senate of the United States,—a large share of them now dead. The acquaintance of some of them I formed, which was of great benefit to me a year or two afterwards.

I spent two years in charge of this school. Here was a large military hospital, which I visited nearly every day, and was led to turn my attention to the study of medicine. I commenced this study with the intention of going into the army. Here I had every advantage I could possibly desire, and for a year and a half I devoted every spare moment out of the school-room to the study of the human system.

I now had an object in view; one to which I had resolved to devote the energy and study of my life. My room was piled with the bones of the dead, and from the sale of these, I afterwards paid my way for a year's study under a physician in N. H. But I must hasten to a close, and will do so by telling what few know outside of my family; for the good deeds of charity done by Mr. Webster will only be known when his account is rendered above. While here, I wrote to him at Washington, stating my position and future desires. The result was a letter from him, which I now preserve as sacred to his memory, inviting me to come to Washington the following winter, and he would place me under Prof. Sewell, a Massachusetts man, and I should have the advantages of the lectures at the Columbian College, free of expense. Consequently, I spent, under this arrangement, the winters of 1840, '41 and '42 in that city. My diploma dates from that college. Probably few young men under such discouraging circumstances—if I were to enter into particulars—have had greater stimulants to high and honorable achievements in my profession, than

myself. I think I have fully appreciated this; and how far these noble purposes have been accomplished, is not for me to say.

Is my position any thing more than what may be accomplished by "Poor Farmer," or farmer's boy in New England? And if from this imperfect example, a single boy in the land shall be stimulated by like resolves and high purposes, to attain an honorable position in the community, the great object of this sketch will have been accomplished. While obtaining my education, I went over half the States of this Union. I have been a close observer of men and things to the best of my ability. I have closely watched the different methods adopted by farmers in carrying on their operations, under a great variety of circumstances, and I have come to the conclusion that there is altogether too much muscular labor, and not half enough head-work among the farmers; that wherever there is the most head-work, there, as a general thing, you will find the best farms, and the greatest profits. For the past five years, I have studied geology to the extent of my means, in connection with the theory of farming, and I have, I think, successfully carried into operation the theory I have formed in the cultivation of my two acre farm. Have I answered the question, or have I given more than was bargained for? Perhaps at a future time, I may more definitely answer the query in a farming point of view. T. Q. N.

November, 1856.

For the New England Farmer.

BASKET WILLOW.

Though much has been written upon the culture of this new branch of agricultural interest, comparatively few have in any degree the information they wish for upon the subject. To those who are looking with interest to read, and anxious to learn whatever may be true with regard to the willow culture, the following is submitted as the result of a visit to the willow plantations of G. C. COLBY, of Jonesville, and ERASTUS PARKER, of Waterbury, Vt.

Mr. Parker has set land with the willow, (Sax Viminalis,) for which he has refused $100 per acre. His field now comprises about three acres, and is to receive a large addition the present season. His cuttings were first set in 1853, and the last year's growth, he informs me, are from seven to ten feet in height, and very smooth and straight. He is now selling off cuttings to those whose orders were sent in early. As he has a limited supply, he has already more orders than can be met. Next season he will probably be ready to supply a large amount. He is fully satisfied with the past experiments he has made, and cheerfully recommends the business to all interested, and the setting of cuttings of a good size, and of the Purple willow only, in this latitude.

I next visited Mr. Colby's field, and took particular notice of the manner in which he has engaged in this business. He is a young man, who, possessing the Yankee spirit, finds a *way* wherever there is a *will*. His *will* has been to raise and *peal* the Osier. The persevering *will* has found the corresponding *way*. By means of a peculiar motion given to different sets of rollers he completely *unbarks* the twigs of any and all sizes and lengths, without in the least injuring or bruising the rods. They may be passed directly from the machine into a bleaching-box, and thus made white and ready for use at any season of the year. When pealed at any proper season, in June, they require no bleaching. But if steamed or boiled they may probably be pealed at any season, and then bleached should it be necessary, to give them the desired whiteness.

This machine must add greatly to the profit in cultivating the willow, as by it a large proportion of the labor may be saved. Its cost will not be out of the reach of ordinary farmers. As but one has yet been made, the exact cost is unknown. Mr. C. has spent much labor and thought in perfecting his machine, and we wish him a good sale and handsome compensation.

Both these gentlemen purchased *yellow* willow at $15 per thousand, and would gladly be delivered from them, *root and branch*. They thrive well in some localities, but here they are full of twigs and branches. They may be useful even here for pasture hedges, but not for Osiers. The purple willow they consider the only one worth their culture. Those who choose a handsome yield and an extra growth, must give them extra care and a good soil. Like all the vegetable kingdom, they thrive best where best treated. A thorough clean cultivation will of course suit them best, but is not indispensable.

Why may not some one make a fortune by leasing the land at the side of our railroads and using such portions as may be suitable to grow the willow upon? If there is a profit in the willow, would there not also be in the protection to the railroad? They may be set in such places without much care, and as the land costs little or nothing, may yield a handsome profit.

While passing over the Vermont and Massachusetts Railroad a few days since, near Athol, I measured a twig of the native willow which grew spontaneously between the rocks, full eight feet long. If these are but natural productions, what may not be expected from those which have care and attention?

I leave this new project for others to comment upon. Suffice it to say I am so well satisfied with the prospects of the business that I shall set about 40,000 cuttings the present spring. G. T. N.

REMARKS.—The above article was received two or three months since, when we had just given several articles on the subject of willow culture, and thought this had better be deferred. Persons reading this now may find inducements to make preparations for planting willow in the coming spring.

CORN-PLANTERS.—We have given descriptions of a great variety of planters—some drawn by horses, some by hand, others to be carried as a cane, or worn upon the heel of the boot. Mr. D. B. Neal, of Ohio, has recently patented a planting hoe, or rather a machine that may be attached to any field or garden hoe, that drops corn and smaller seeds. Verily, "ingenious fancy is never better pleased," now-a-days, than when at work to accommode farmers.

HINTS TO WORKMEN ON HEALTH.

1. Abstain from all spirits and dram drinking. Spirits relax the muscles, diminish the strength of the body, and render men susceptible of disease.

2. Let your food be coarse and plain. Concentrated and highly-seasoned food is, if possible, as bad as liquors.

3. Where (well-filtered) water does not disagree, value the privilege and continue it. Pure water is a far better beverage for the sedentary, and those who take but little exercise, and for those whose labor or exhausted strength do not require stimulants.

4. The quantity (of most things) is always more hurtful than the quality.

5. Take your meals at regular hours always. The human frame is capable of being changed from sickness to perfect health, by a well-regulated system of diet.

6. Avoid everything, however agreeable to the palate, that from experience you find to disagree with you.

7. Make daily ablution the first thing on rising; you will feel stronger and more refreshed from it during the day. I fancy I hear you say that you have not the time to do so. My answer to you is, rise ten minutes earlier, dip a coarse towel in cold water, wring it out, and rub the whole body over. "Cleanliness is next to godliness."

8. Never quack or tamper with your constitution by taking patent medicines; they are offered for every kind of disease, for many of which they are decidedly prejudicial, producing very often fatal results. If slightly indisposed (and if it is possible to do so,) remain quiet, avoid all excitement, and abstain from all meats and fermented liquors for the day. In headache and slight fever, this plan mostly effects a cure. Never use purgatives.

9. Take exercise if you value your health, but proportion it to your strength.

10. Never learn to smoke; shun tobacco in all its forms. It stunts the growth, when taken at too early an age; it is a great promoter of indolence and laziness; it causes nervous trembling of the hands, and nervous debility; it has nothing nourishing or stimulating in it, but is merely a narcotic, of which the moral and physical effects upon those who use it are of a very dubious character.—*Correspondence of the Builder.*

CASHMERE GOAT AND SHAWLS.

It is not as yet generally known that the Thibet goat, from whose wool the famous Cashmere shawls are made, has been introduced successfully into the United States. This enterprising undertaking was achieved a few years since, after many difficulties, by Dr. J. B. Davis, of Columbia, S. C., at that time employed by the Ottoman Porte in experimenting on the growth of cotton, in the Sultan's dominions. Dr. Davis succeeded, at vast expense, in securing eleven of the pure breed, which, on his way home, he exhibited in London and Paris. Since that period, the goat has been introduced from South Carolina into Tennessee, where it is said to thrive. The value of a flock may be estimated from the fact that no real Thibet goat has ever been sold for less than a thousand dollars. This enormous price, moreover, is not a speculative one, for no fleeced animal has wool of such fineness, softness and durability. The wool of all the Thibet goats in Tennessee, for example, has been engaged, at New York, this year, at $8,50 per pound, the purchasers designing to send it to Paisely, in Scotland, in order to be manufactured into shawls.

The prices paid for the real Cashmere shawls, or those woven in India, have sometimes been almost fabulous. A full sized shawl, such as is called in America a long shawl, ordinarily commands in Paris or London from five hundred to five thousand dollars, according to the quality. Scarfs and square shawls, being smaller, sell for less. It is a mistake, however, to suppose that all these shawls are manufactured in India, in the shape in which they are sold here. Generally, indeed, the centres and borders come out separately, and are put together afterward in sizes, and after patterns, to suit purchasers. Moreover, a large portion of the shawls sold as real India ones are actually made in France, for the Thibet goat was introduced into that country more than thirty years ago, and the Cashmere shawls imitated with considerable skill. Judges of the article pretend to say, however, that the real India shawl can be detected, by its having a less evenly woven web, as also from its brighter colors. It is likewise said that the border of the genuine Cashmere shawl is invariably woven in small pieces, which are afterward sewed together, as the whole border is subsequently sewn on to the centre. But other authorities deny that the skill of India is insufficient to *broche* a shawl; in other words, to weave the border and centre in one piece, or run the pattern of the former over the latter.

Notwithstanding the successful imitation of these shawls, fashion and luxury still prefer the apparently ruder original. Just as laces, woven by hand, bring a price more than five times as great as the same pattern woven by machinery, so a Cashmere shawl, known to have come from India, will fetch vastly more than the cleverest imitation. Probably, however, this is not all. Persons familiar with both the article and the imitation assert that the former is softer than the latter, and that this softness arises partly from the way the thread is spun, and partly because the Thibet goat, when exported from its native hills, sensibly detriorates. There is also a shawl known popularly as the French Cashmere, which is an imitation of the imitation; but this has none or very little of the wool of the imported Thibet goat. The animal from which this valuable fleece is taken is a hardy creature, at least in its original locality; and their fine curled wool lies close to the skin, just as the under hair of the common goat lies under the upper hair. Eight ounces for a full size goat is a large yield, but the yearlings, from whom the best wool is taken, give less. About five pounds is required to make a shawl of the largest size and finer quality; but three or four pounds is sufficient for an inferior one. —*Philadelphia Ledger.*

THE HIGHEST MOUNTAIN IN THE WORLD.—The principal topic of conversation at Calcutta is the discovery of the highest mountain in the world. At the meeting of the Asiatic Society of Bengal, on the 6th August, Major Thuillier announced that Col. Waugh, Surveyor General of India, had completed his computations of the positions and elevations of the peaks of the Himalaya. The result was to depose the mountain Kanchinjinga from its

throne as the highest point on the earth's surface. That distinction belongs for the present so a peak 100 miles from Kanchinjinga, and between that mountain and Kanmandoo. This peak is ascertained to be 29,002 feet above the sea level; Kanchinjinga is 28,156 feet; and Dewalagirl, the mountain which "school geographies" persist in calling "the highest mountain in the known world," is only 26,826 feet. The mountain has no name intelligible to civilized men, and Col. Waugh has therefore ventured to denominate it "Mount Everest," after a former surveyor general.

For the New England Farmer.

REMARKS ON THE APPLE.

I noticed in your journal for Nov., a piece headed "Apples," from the pen of Mr. S. Fletcher, of Winchester, in which he states that Mr. Cole, in his work on Fruit, remarks, that he never knew a great crop of apples in an odd year, nor a small crop in even. This, generally, may be true, yet I have some varieties, such as the Baldwins, for one, that have borne full crops every year. Many may wonder at this statement, yet it is even so. There are a number of apples that go by the name of Baldwins that are not, and they are inclined to bear only even years, but the genuine Baldwin, which I think I have, bears full crops every year. I gathered a crop of them this season, but they were poor compared with former ones; this was the case with all my fruit, as well as all I have observed in this section, and it has been a general complaint from every source that apples especially were poor. But to proceed with the subject. He says 1856 is the even year, and yet he thinks we are not likely to have as good crops as we have had in former years, odd or even, for a long time. This is true, as the demand and price testify. I have had some experience in the matter having bought considerable many, and have had to pay as high as four dollars a barrel for them.

The question has often been asked me, how I accounted for the failure in the crop? My reply has been, from the cold blighting winds and unfavorable weather which we have had while the trees were in blossom, together with the curculio. Many were surprised that I thought it the curculio, as they said they thought this enemy never troubled any other than stone fruit. All those who have been careful in their observation will undoubtedly agree with me, yet it is a recent thing that this enemy has attacked any other than stone fruit, and I do not apprehend that we need give ourselves any uneasiness about this destroyer in time to come, for we may not be annoyed again for many years. I am sorry my friend is so easily dampered, and fears we shall have to give up raising this choice and standard fruit the same as many have the plum. My plums have done unusually well this season. If I were to choose between the wart and the curculio, I should choose the latter, as it is harder to master that than the curculio.

But suppose the curculio should continue to sting the apple, is it any reason that we should stop trying to raise it? Why not with the same propriety say, as the birds carry off my cherries, we shall have to give up to them, and stop raising them. Instead of being discouraged, or advising any one not to set trees, I would say set double quantity, and then we may hope to have apples enough for all.

I think there has been a mistaken notion with many persons in regard to fruit, and especially apples. It is this, that there was danger of setting too many trees. We should have more fruit than would be salable. Many individuals have often made this remark to me, but do not such forget that the consumption is greater every year? And they have not taken into account that many trees are dying every season from want of care, or from not selecting good trees to set. The danger, if any, is the opposite, which all will acknowledge who have been watchful of the market, and that is, that there will not be enough set. There is no mistake but what we have poor fruit enough, but good choice fruit will always find a ready market.

Yours, truly, D. CHAUNCEY BREWER.

Springfield, Nov. 13, 1856.

For the New England Farmer.

SNOW FLEAS.

DEAR SIR:—I wish to make inquiries relating to a species of animal life which has often enlisted my sympathies. Although harmless and innumerable, I have never seen any account of their habits, propagation, subsistence, uses, length of life, manner of death, &c. &c. I refer to what is commonly called "Snow Fleas," which generally appear in the unpropitious season of February or March.

My pity has been much excited to see millions as if in the last efforts of life struggling amidst cold snow, frost and water, when I could see no shelter, sustenance, home or hope of relief for them whatever. Can they come from the ground when it is frozen and densely covered with snow? Do they come from the clouds? and if so, how do they get there? What do they live upon, and in what is their enjoyment? Exquisite mechanism and skill is manifest in their construction, and as much strength and energy (in proportion to size) as perhaps in any other created animal.

Yours, &c., ELIAS SHARPE.

Lockport, N. Y., 1856.

For the New England Farmer.

CHINESE SUGAR CANE.

MR. EDITOR:—I have lately seen several statements in different papers, of the virtues of the Chinese sugar cane, or sugar millet. It is recommended, among other things, as a valuable article for green fodder for cows. But I fear it will disappoint us in that use. With me, its growth for the first two months was very slow, much slower than that of the southern flat corn; the leaves are small, and the stem is so hard that the cows refuse to grind it for the sake of the exceeding sweet pith. It seems, in fact, better adapted for fishing-poles than for fodder. My cows would only pick off the leaves, even when the plant was in blossom, while, at the same time, they would eat greedily the stems of the common sweet corn, from which ripe ears had been gathered—both planted in hills, growing side by side. The stems of the sweet corn were fully as large in diameter as the other, though not more than half so tall. MINOT PRATT.

Concord, Oct. 30, 1856.

THE AMERICAN SHOVEL.

The shovel is a potent agent of civilization, without which society would retrograde rapidly towards barbarism. Consider the ubiquitous usefulness of the shovel, or imagine the annihilation of the shovel, and the truth of our proposition will be demonstrated. Who made the first shovel, history, so far as we know, refuses to tell—and tradition is likewise silent. In all likelihood, however, it was the antediluvian "instructor of every artificer in brass and iron." For this supposition, there is at least poetic authority: since Burns puts into the catalogue of Captain Grose's collection of antiquities,—

"Auld Tubal-Cain's fire-shool and fender."

Be this as it may, clearly the shovel is a legitimate child of the "mother of inventions,"—a product of necessity: it is so difficult to conceive of the time when it was not needed and not known. But we have, at present, a better purpose in view than the indulgence of unprofitable speculation, peering into the dim twilight of the primitive ages. We have a story, all compounded of fact, of our own day and own land to relate—a story slightly wonderful and by no means unsuggestive or uninteresting.

In the last century, most of the shovels in use, hereabouts, were of wood—shaped out by the farmers and then "shod" or edged with iron or steel, by the blacksmiths. About four score years ago, in Bridgewater, we think it was, Mr. John Ames began the manufacture of shovels. He used American iron, and the bars were brought from neighboring forges by his own son, carrying the load before him on horseback—say two bars at a time. The rolling, shearing, hammering, &c., was done at his shop: the handles were made by cabinet makers. At this period a Mr. Dyke was also engaged, in North Bridgewater, in the same business. During the Revolution, there was a great demand for guns, and Mr. Ames contracted to furnish these weapons of war to the Continental army, and abandoned the making of the implements of peace. After the struggle was over, he turned his ingenuity to the fabrication of knives and forks and scythes, then much wanted.

It was about 1800 that the youngest son of John, Mr. Oliver Ames—who, though more than three score and ten, is still hale and active, and the head of the firm we shall refer to presently—recommenced the making of shovels at Bridgewater. He changed his location several times, having his shop in Bridgewater, Plymouth and Easton, respectively, until 1814, when he settled permanently in the latter town. From 1814 to 1820 he turned out from 8 to 10 dozen per diem. In 1821–22 there were but two shops. A want of water led to an increase of the number; and privileges were obtained, and a shop built in Braintree in 1822, in West Bridgewater in 1829, and in Canton in 1848. These, carrying nine trip-hammers and five grindstones, still belong to the concern, being, as it were, tributary colonies to the great central establishment. In 1845 Mr. Ames took two of his sons, Oliver and Oakes, gentlemen now widely known and highly respected, into partnership. Several of the third generation are employed as clerks and overseers; so that the manufactory is a sort of "family affair," and no small affair either; since it is managed with consummate system and skill, and is made, indirectly at least, to produce something besides material wealth. Of its character and magnitude we will now endeavor to give our readers some idea.

The village of North Easton, in population and prosperity by far the largest part of the town to which it belongs, is situated in Bristol county, about 22 miles from Boston. The natural scenery is pretty, the soil fair, but there is nothing specially attractive about the place, as such; and the editor of 'Harper's Gazetteer of the World" appears to have been lamentably ignorant of its chief glory. That reliable (?, if this is a specimen of its accuracy) work speaks of saw-mills and grist-mills, without saying a syllable about the shovel factory—the part of Hamlet left out with a witness. As a matter of fact here is a thriving community, of some 2000 souls, quite homogeneous, comfortable and independent—made what it is, with its cottages, churches, schools, &c., almost entirely by the wise enterprise, the truly philanthropic mechanical skill and business talent of a single "house," or "household," perhaps we should say.

The main building of the factory—called the "Long Shop"—is two stories high, 525 feet in length, with an L 95 feet and an engine room 40 feet, built of stone obtained hard by. Then there is another stone edifice, recently erected, where ten trip-hammers are put in operation by one of the finest steam engines (250 horse power) we have ever seen—and the same may be said of its rival, somewhat less in size, in the "Long Shop." Besides these main structures, there are six hammer shops (all the hammer shops give 21 trip-hammers,) one grinding shop with five stones, and one shearing shop.

Within the "Long Shop," principally, are the various machines, invented and arranged by Mr. Ames, senior, and his son Oliver. These are full of interest, both on account of their labor-saving value and the nicety of their operations. Here knives cut iron and steel plates, rapidly and smoothly as Salladin's scimetar cut the silken scarf, dies shape the blade with a single pressure, punches pierce and counter-sink holes for the rivets, grooved wheels lay the straps to the handles—and numerous other contrivances perform numerous other operations, with great rapidity and very perfectly. A detail of these contrivances and the work done by hand would be tedious and not very intelligible on paper; the system must be seen "in action" to be understood. Suffice it to state that it takes 24 different processes to complete a first quality cast steel shovel. All these processes are performed on the premises, except the making of the handles; these, of white ash, are made in Pennsylvania and Maine—the wood from the latter State being preferable from its closer grain. The advantage derived from machinery and the divison of labor may be judged of, from the fact that a shovel is finished in about one hour and a quarter; and 300 men being employed, shovels are produced at the rate of one per every *fifteen seconds*, or 200 dozen a day; that is 2400 shovels in ten hours—750,000 in a year!

To use an "Hibernianism," one-sixth of the number of shovels are spades; and of shovels proper there are seven different qualities—among which is the long-handled, pointed-blade shovel, preferred by Californians. The stock used in one year is as follows:

Best Swedish Iron	900 tons.
Cast Steel	400 "

Fuel	2000 tons.
Grind Stones	85 "
Emery	18 "
Vitriol	5 "
Glue	3 "

The amount of sales, the last year, was $600,000. The average price of shovels per dozen, is about $10.

At this establishment are manufactured one-third of all the shovels, (six hundred dozen a day) made in the United States. So it is the banner shop, followed at a considerable distance by about thirty other shops, the principal of which are those of the Rowlands, at Philadelphia, and Lippincott, at Pittsburg, Pa.

The natural increase in the demand for shovels occasioned by the growth of the population, has been greatly augmented by the construction of railroads and canals, and the discovery of the gold mines in California and Australia. The latter country, at the present time, opens the principal foreign markets,—taking from five to ten thousand annually. There is a large exportation, also, to South America and Canada.

We have headed this article The *American* Shovel, for two reasons: 1. It is the only shovel in use at home, there having been no importation of shovels, of any consequence, for sale since 1828; and 2. For the combination of lightness and strength, and, very likely, for cheapness also, it has the preference in the colonies of Great Britain. Here then is a decided victory, obtained in a comparatively few years, by our manufacturers; and for this victory we are mainly indebted to the fine establishment at North Easton.

But this is far from being its only title to consideration and honor. We look upon it as a manifestation of ability, of prudence and courage combined, of a noble ambition or pride in a useful enterprise,—of some of the best features of New England energy, diligence and ingenuity; and we have taken pleasure in sketching the story of its progress, from its small beginnings and early struggles with difficulty, from the time when the venerable head of the firm found it far harder to dispose of a few dozen shovels, carried by himself in a wagon to Providence, than to get rid now of hundreds of dozens,—up to its present prosperous and commanding condition.

We look upon the establishment of the Messrs. Ames as something better and higher than a successful business operation, and as having other relations besides its relations to the business world. It illustrates, as we intimated at the outset, the fact, that the right and enlightened pursuit of individual interest may be truly philanthropic in direct and indirect results, and it symbolizes the progress of civilization. There is that about North Easton which indicates the presence of a positive regard for the welfare of the little community, and a positive public spirit. But without adverting to this, the place is an evidence how the interests of employer and employees are identical, and how all prosper together. At a rough guess we may say, that fifteen hundred persons are dependent upon "The Shop"—and "The Shop" takes care of them all. Some of the operatives have been steadily at work for years, and earned a competence. One man, if he lives till next November, will have been engaged in shovel-making, under Mr. Ames, for half-a-century; and he has, naturally enough, identified himself with the "concern," and feels that his connexion with it is something to be proud of. Should his life be spared till he rounds off the fiftieth year of his service, he ought to have a jubilee and a testimonial!

But besides the benevolent working of this free-labor institution,—where every man who respects himself may preserve his independence and put the wages of his own toil into his own pocket,—it tells also of social advancement. You may despise a single shovel, but when you reflect that more than *two millions* of shovels are demanded annually, from the makers in the United States alone, the shovel, we submit, becomes amazingly significant. You may look at it in the hands of a coal-heaver, and read on its blackened surface a story of doings as wonderful, and almost as magical, as those recorded of Aladdin's lamp. We have not room to recite the merest fragment of the tale. But whosoever will number up all the kingdoms that contribute, all the sciences and arts that in these modern times go to the making of a shovel, and then meditate on the important part the shovel has played, and is still playing, in road-building and internal improvements, in that digging for gold, which, perchance, saved the commercial world from a general bankruptcy, and now so largely affects trade the globe over—whosoever will do this, as it may be done, will find the shovel growing in his imagination into a thing of might and meaning, and the shovel-maker claiming his respect as a benefactor of mankind.—*Traveller.*

THE HAIR SNAKE.

This singular species of "animated nature," so readily explained by every country child, as the simple metamorphosis of a horse-hair that chanced to fall into water, is an unsolved enigma with naturalists. Science has not satisfactorily determined either the origin or the modes of existence of these animals. In reply to inquiries by a correspondent of the *Michigan Farmer*, who found hair snakes in a pan of milk, Mr. Justus Gage, of that State, furnishes a very interesting account of his experiments and observations. He is satisfied of the fact that both the large and small crickets deposit these snakes in water, during the month of August; but whether the cricket resorts to the water to rid itself of a parasite or to deposit a natural product of its body, he is unable to determine. Mr. G. says, that one morning after he had been experimenting in his room, by throwing crickets into water to obtain snakes, and had succeeded in procuring two, of about four inches in length, he noticed a black cricket crawling up the side of his water-pail. "It jumped into the water, lay quiet for a moment, produced a snake nearly seven inches in length, and then nimbly made its escape over the edge of the pail." He also found a live hair snake, nearly seven inches in length, coiled up in the abdomen of a dead cricket that lay on its back under a flat stone. The hair snake, he says, will live a long time in moist earth, where he has found them of a greyish or white color, sometimes of great length, and much

resembling the fibrous root of some vegetable. When seen through a magnifying glass, the hair snake presents an almost exact resemblance to the lamprey eel.

A lady of our acquaintance found a hair snake in her teakettle, one morning, a few years since. It had been standing where a cricket might have crawled in by the spout; but she is hardly willing to give up the theory of her girlhood, that it was a vivified horse-hair.

For the New England Farmer.

POISONING WITH LEAD.

Who shall decide when doctors disagree? is no new question, and it has meaning. Doctors have not always agreed; doctors in law, medicine, or theology. Nor are they agreed even now; happy is it when they can agree to differ. I am not aware, however, that doctors of medicine—to whom the above inquiry is most frequently applied—have more points of disagreement than doctors of theology.

On one point, however, if on no other, medical men of all schools are very nearly agreed. I refer to the effects of lead; or, as the chemists say, *lead salts*, when introduced into the human system.—No one, at the present day, will deny that these salts are always, at best, unsafe; especially to those who are, from any reason whatever, more or less enfeebled. The diseases to which they peculiarly dispose a person are colic and paralysis.

One of the most striking cases of this species of poisoning occurred somewhat recently at West Newton. A full statement of the facts cannot but be instructive, and serve to aid in putting the public on their guard against a result, which, in one form and degree or another, is of almost daily occurrence; and is sometimes fatal.

Capt. Jonathan Hallett, about thirty-four years of age, of excellent constitution and good general habits, was, in the autumn of 1855, afflicted several weeks with typhoid fever; and after partial recovery, experienced one or two relapses. About the time of his first recovery he removed with his family into a new, or newly repaired building, where the water intended to be used by the family, and otherwise excellent, was brought about sixty feet through lead pipe.

During much of the time in the following year, he was severely afflicted with colic, which at times became very severe and unendurable. Although, however, it in some good measure passed away; but left behind a most troublesome and unmanageable costiveness. Late in August, he began to be affected with paralysis, first in his hands, and afterwards in his feet and lower limbs. Both at length became so useless that he could neither raise the former to his head, nor bear a pound's weight on the latter. There was also great insensibility about the hips and abdominal region, both externally and internally, with an entire loss of sensation in his lower limbs, and a continuance of the costiveness.

About the first of the present month, November, Dr. Brown, of West Newton, and Dr. Hosmer, of Watertown, under the full conviction that the use of lead had something to do in the case, advised him to repair at once to an "Electro-Chemical Establishment." He was accordingly brought to this city, and placed under the care of Dr. J. Silas Brown, and Dr. Wm. A. Alcott, his associate, at their Electro-Chemical and Hygienic Institute, No. 20, La Grange Place, where he remained three weeks.

The examination of Drs. Brown and Alcott, as well as an examination by Dr. E. H. Clarke, Professor of Materia Medica in Harvard Medical College, confirmed the suspicions of Drs. Brown and Hosmer, as did also an analysis of some of the contents of the well from which Capt. Hallett had drank, by Dr. A. A. Hayes, the city assayist. The latter pronounced it to be so much impregnated with lead salts, as to be unfit for culinary use.

The first bath, which was taken at La Grange Place, so far restored Capt. H. to the use of his limbs that he could not only raise his hands, but could actually walk from the bath to his bed, a distance of fifteen or twenty feet. Another bath two days afterward, accompanied by a rigid diet, almost gave him the full use of his limbs again; and he was forthwith walking about the house; and during the third week of his remaining there, he could help himself, and even walk about the city with a good deal of energy.

It is also worthy of remark that within a few hours after receiving the first bath, his costiveness, which had been troublesome for years, and so exceedingly obstinate for more than one year, as to yield only to medicine, entirely left him, and a regular daily movement has been as certain as the recurrence of day and night, from that time to the present. He left this city for Yarmouth on a visit to his friends, on the 22d. There will probably be no want of good cheer in the festivities of the 27th, so far as the circle of friends to which Capt. Hallett belongs is concerned. A more sudden and unexpected recovery, under circumstances so trying, has seldom been known; and calls, if aught can do it, for the most devout gratitude and thankfulness.

W. A. A.

For the New England Farmer.

FARM IMPLEMENTS.

Having read the remarks of farmers and others at different times in your journal, I have come to the conclusion that something more should be said about the plow. Some one, I observe, thinks there has not been much improvement in the plow, though there has been many changes. I think there is much gain for the last twenty years or more, in the *material* of which the plow is made, but in the shape something more is needed. Nearly or quite forty years ago, my father planned a plow that would run up and down the side of a strip of land, that was twenty-five rods in length and keep its proper position around the end, *without any person to hold it.* The beam was of convenient length, the mould-board was comparatively long, the plow itself was very narrow, the handle much shorter than those of the present day, and though almost entirely made of wood—the mould-board being wood, covered with strips of old iron—yet it performed its work beautifully, laping the furrows as level as the planks of a barn-floor; and required but a moderate share of strength to draw it. In those days we had no wheel, no cattle, no centre-draft rod, none of the numerous fixing of the present day, but in their

stead, we had the old fashioned foot, made by cutting off one hole of a fence post and applying that to gauge the depth. Then there was an ear on the side of the beam to hitch to.

Now, Mr. Editor, I would suggest that we should as soon as possible, bring about a reform in the construction of farm implements. The plow, the hoe, the sythe, the axe, and many other tools need attention. The mechanic who manufacture these articles, should know how to use them, and to gain a knowledge of what is wanted, can they do any better than to make inquiry of those that are experienced in using farm implements and occasionally taking lessons in the practical part of farming? With the right implements, and knowing how to use them, I believe that a saving of twenty per cent. may be made in the production of our main crops. A good plow makes a saving in strength, in time, and also in doing the work perfectly. A good hoe saves at least twenty-five per cent. Such scythes as were to be found forty years ago were superior to a majority of those to be found now; whilst the axe might be so improved as to lessen the labor at least forty per cent.

I am glad that discussions on agriculture are being had in all directions, and that the time is hastening on, when it shall receive the honor due it, and when it shall be as profitable as other callings; when we can raise our grain as cheap, and as I believe we may, a good deal cheaper than to buy it. R. MANSFIELD.

Needham, 1856.

FREE ACIDS IN SOILS.

Some months since we gave an article on this subject, in which we pretty strongly expressed our views in relation to it, and which we find the Editor of the *American Farmer*, published at Baltimore, does not agree with. This paper is one of the most critical and able of the agricultural journals of the country, and we take pleasure in laying the opinions of its Editor before our readers.

The writer has a direct personal acquaintance with this plant, (the sorrel,) from the days that he rolled on the green sward, and ate grass like Nebuchadnezzar; chewing up with a *gusto* the little pointed, pleasantly acid leaves of this "sheep sorrel," as he always called it. When he commenced reading agricultural publications he imbibed these theories about "free acids," and the necessity of neutralizing them, and practised upon them to his cost; and now, after many years of experience in the cultivation of such soils, he not only thinks but *knows* that the "red sorrel" is not an indication of "free acids," as they are called, or that if it is, then these "free acids" are no impediment whatever to the most successful cultivation and improvement.

He has now in cultivation a considerable body of land, not very long since taken out of the woods. He verily thinks that there is not one foot of this land which, if plowed and thrown out without being cultivated, but would produce sorrel in luxuriance. He can point out at this moment a piece of sward thoroughly "set" with white clover and Timothy, and not a sprig of "sorrel" apparent, and a part of it, plowed up during the last summer, cultivated in turnips, and not yet plowed again, which is covered with a growth of "sorrel," now in full bloom. There they stand, the sorrel showing to the line the ground which was broken up the past season, and the white clover and Timothy turf along side, showing as distinctly that the lurking enemy has no power to hurt them.

Immediately adjoining this is a lot of fifteen acres of clover, which has just been harvested, and which justifies fully the remark of the worthy manager who superintended it, that he "don't reckon clover ever grows much heavier than that." Take the lot through, it was a specimen of luxuriant growth which we do not recollect to have seen surpassed. Now, as we have said, we know that every foot of this ground, if merely plowed and let alone, would produce "sorrel" luxuriantly. If the "sorrel" indicates a "free acid," and the "free acid" is "an insuperable barrier to successful culture," how *could* such a crop of clover grow? But mark, the clover is classed in the books as a *lime* plant; that is, one of a class of plants to which an abundance of lime is essential. But acid plants and "free acids" show a deficiency of lime; then *where* did such a crop of clover get its supply of lime?

But there were exceptions to the general character of this crop of clover: on a stony knoll where there was little depth of soil, the clover failed and the sorrel had possession. On the spots upon which the grain was shocked and the clover smothered out, the sorrel appeared. At the foot of a tree, where the plow and the hoe failed of a thorough cultivation, sorrel abounded. On a spot where the water failed to get easily away, and a portion of the clover was winter-killed, there the sorrel grew.

It grew every where in the absence of the clover, it grew no where when the clover flourished.—Wherever the clover failed, it was readily accounted for by an accidental cause, entirely independent of the "sorrel" or the "acid," and notwithstanding the universal prevalence of this same condition, the clover failed no where when the other necessary conditions were present, viz: thorough cultivation, and a freedom from accidental obstructions. It is a common thing in passing a field where the clover has failed and the sorrel has possession, to say that the sorrel has overrun the clover—that the land is full of acid and wants lime.

Now, so far from overrunning, the sorrel only grows where the fastidious clover refuses to grow. The clover requires a clean, thorough cultivation; any accidental cause which prevents this, or any general cause, as an excess of vegetable matter not well decomposed, will cause a failure. The "sorrel" is a natural growth, not requiring the same conditions, and will flourish where clover will not. It takes possession, therefore, as a matter of course, when the clover fails from other causes, but is not the cause of that failure.

Now as to lime, it is well known to be upon some soils an exceedingly valuable manure. It is an essential constituent of a fertile soil, and if absent or deficent, must be applied. Its absence or deficiency is *not* indicated by a growth of acid plants, such as "sorrel," because if so, it would be impossible, without an artificial supply where such plants grow, to produce abundant crops of wheat, corn, clover, &c., such as we know are constantly made upon some such soils. Lime is not necessary upon all soils which produce acid plants; it may be, and very probably is, necessary upon some soils which produce them—not because these acid plants grow,

but because there is a real deficiency which experience testifies to.

But an application of lime may be useful, when it is not necessary. In the writer's experience he finds that his soil contains quite lime enough for the purpose of *feeding* all plants. But the action of lime goes beyond the mere supply of that which goes into the plant consumption. It has a powerful agency in decomposition, and in preparing other material for use. And the question here arises,—how far it may be useful for this purpose, and what expense would be justified in procuring it? He has thus far found it unnecessary for this purpose, on his land, and not likely to justify any expense. He finds the "sorrel" perfectly under the control of *active, thorough cultivation*, or to speak more correctly, he finds a *deep, thorough* and *cleansing* cultivation produces that condition of soil, which fits it for the growth of clover, wheat, &c., to which the "sorrel," under such circumstances, always gives way. For him, therefore, and for such soils as his, lime is not necessary as the food of plants, because the natural supply is sufficient, and its agency in decomposition, &c., would not pay the cost of the application. He finds a more economical agency in the use of the plow and the action of the atmosphere.

But it by no means follows, that what is true for some soils and some circumstances is true for all; a sufficiency of lime for the supply of the plant food must be present, either naturally or by application, in all productive soils; and the propriety of the application for other purposes must depend upon circumstances, of which every man must judge for himself. There are regions of country where the effect is so striking, that no one can hesitate to use it at almost any cost. In other sections the good effect is less apparent, yet a less price may amply justify its use. In other sections, again, while it may not be without good effect in preparing the food of plants, yet if this same action is brought about by ordinary methods of tillage, and the influence of the atmosphere, his labor and expense are lost. In this, as in every question of practice, let the farmer learn to exercise sound discretion, untrammelled by fashionable theories. Let each man, while he makes himself acquainted with the best opinions of others, make careful note and observation of the circumstances under which he is operating, and guide his own action by his own judgment.

To Preserve Vegetables through the Winter.—*Potatoes.*—If it is desired to have potatoes in the spring as fresh and mealy as in October, they must be preserved by making a layer of potatoes, then of dirt, filling all the crevices, and so alternately until you have secured them all. If you will try this for once, you will ever after adopt it as the best method of keeping potatoes fresh and good. The idea of tumbling potatoes into a cellar where the mercury ranges from 45 to 60°, and expect to have them fresh and good, is not a correct one.—Potatoes grow in the dirt and are best preserved in it. But carrots, parsnips, turnips and rutabagas are also much better kept by packing them in dirt. The dirt for potatoes and other roots and tubers should be about as moist as is needed to grow them to advantage, and if sandy in its composition, so much the better.—*Michigan Farmer.*

A HINT FROM UNDER THE WALL.

On passing a large field early in April, we noticed two or three men plowing sward ground. Large old apple trees were scattered over the field, and as the weather was too warm to keep the team constantly in motion, while it was cooling and recovering breath, the men employed themselves in pruning the dead limbs and suckers from the trees, and conveying them to the wall, threw them against it on the side next to the road! The white birches, alders, blackberry canes, and other shrubs that had grown in rank luxuriance, and entrenched upon the "rights of the road," had also been cut down by the highway surveyor of the district, and thrown there too. This collection, together with the smaller weeds, furze, &c., which had been collecting for years, formed a combustible mass which would undoubtedly afford *the boys* some fun to burn.

The field in due time was plowed—the soil looked thin, cold and hungry, and as though it needed manure, and half a pound of potash per rod, to warm it into active life. Towards the close of April, passing the field again, we found the wall black with smoke; the old apple tree limbs and birches, briars, alders and weeds were gone—the flames had not only licked these up clean, but the dead leaves and thin sod were also consumed, leaving their ashes an inch deep among the stones which skirted the now blackened and barren wall. We frequently saw the newly-plowed field during the summer and autumnal months, and the crop it produced was in keeping with the appearances of the soil in spring.

But what of under the wall? Ah! there was a magnificent hint! If all the appliances of art had urged the growth it could scarcely have been greater. The brakes and ferns would have done credit to the forcing house; the blackberry and raspberry canes found support on the top of the wall, and looked tauntingly over into the hungry field below, while the young birches were crowding each other for more room! It was really a "quickset hedge" into which one would be reluctantly thrown.

But it had its compensations,—for when age and frost had touched the leaves of the other plants, and they had trembled and fallen to the ground, the modest and beautiful aster, that gem of the woods which Bryant has immortalized in his "Death of the Flowers," was revealed, with its delicate blue and purple and white flowers, to gladden the eye of the traveller, and compensate him somewhat for his unpleasant reflections upon the mal-practice in farming which he is obliged to see.

The plowmen in the latter part of Octobor might have indulged in the following dialogue—we hope they did. (*Leaning on the wall,*) "I say, Josh, didn't we burn this over last spring,—or was it the spring before?"

"It was last spring," says Josh, coming up and leaning on the wall too; "I remember it, because we were lugging out the apple tree limbs when *that man* went along who looked at us as though we owed him something."

"Well, I never see things grow as these have in one year afore. If our corn had growed like this, we should have had *some*, I guess. Wonder what the reason is?"

"Don't know," said Josh, "the sun comes here terrible hot in the middle of the day, perhaps it's that; the papers say ashes make things grow, but I never believed it. I guess it's got the wash of the road."

"No it hasn't," said Ben, "it is a good deal higher here than the road itself,—it must be the ashes, and if I live till spring, I mean to buy some and try it."

And so the corn was loaded without much labor, for it was not heavy to handle, and the harvesters went home.

Well, we hope the hint they got from under the wall will be wrought into good works, and produce to them abundantly. But will they, and their neighbors, in the mean time, gather the apple tree and all other brush and rubbish, and *burn it carefully under the wall?*

For the New England Farmer.

CABBAGES vs. ONIONS.

MR. EDITOR:—When I have read recently, the high-wrought panegyrics on underdraining, by your intelligent and agreeable correspondent from Exeter, I have been disposed to think that he allowed his fancy to lead captive his judgment; notwithstanding it may be his peculiar province to judge without exaggeration. But a fact has lately come to my knowledge, quite as extraordinary as any of the benefits he has ever witnessed. A farmer, near the shore of the sea, in this county, accustomed to grow cabbages for the market, underdrained his field to the depth of three feet, and planted his seed in hills, as is here the custom, to the number of 4000 the acre. From this field, he gathered and sold in the market at the rate of 60 tons to the acre; realizing a profit of $400. I have been accustomed to look upon an onion crop as profitable, when six or eight hundred bushels could be grown upon an acre; but when the difference in the labor of cultivating the cabbages and the onion are taken into view, I believe the onion will have to surrender its claims to superiority.

November 23, 1856. ESSEX.

PROGRESSIVE.—One of our agricultural exchanges says that the time is coming when the pitchfork and cutting machine shall be laid aside, as implements of feeding cattle, for all good farmers will grind their hay into meal, because hay meal will be found much more economical than hay, as Indian meal is more economical than unground corn.

For the New England Farmer.

AUTUMN GLEANINGS.

BY SUSIE SUMMERFIELD.

Autumn is the season when the farmer, the matron and the nimble maiden make gleanings from the abundance which "Dame Nature" pours upon them, where they design, sow, plant and reap in accordance with her laws, and where her requirements are satisfied. Golden sheaves of corn are garnered; mealy potatoes are housed; yellow pumpkins are heaped in convenient places, ready for "old Brindle," that her butter may catch their glowing tinge; juicy apples are carefully gathered, and all are busy and happy in the midst of abundance.

I, too, have been gleaning; and O! such an autumnal gleaning have I enjoyed, that there seemeth nought but a spirit of praise "to God for his benefits unto the children of men," inspiring all within the chambers of imagery. I would tell all the farmers, and those of their home-circles, what has been my success and enjoyment. Pause ye, then, in your life labors, and let me tell you what a novel harvest I have secured, and what a discovery I've made, during these "mid-October days." It is that *progress, elevation, and success* have become matters of certainty to the persevering, energetic New England farmer. Though many have left Eastern homes, to seek an abode in the "famous West," where, it is rumored, that a Genii dwells, who is ever ready to enrich each sojourner with great wealth—yet it is proved that such can be gained upon our own styled, sterile soil. Therefore, I say, progress is united with agricultural pursuits. Science has decided that compounded composts will enrich the soil. Mechanical ingenuity has planned and perfected farm-implements, which enable farmers to perform hard labor without any rheumatic results. Experiment has proved that bog meadows may be drained, and transformed into prolific fields, all which proves farming to be progressive. Farmers can and do become rich, without resorting to the West.

There is much to encourage the farmer at this day, compared with what there was, in times past. After the spring planting and sowing, the summer's ripening and perfecting, comes autumn gleanings and harvesting. Then, here and there, we see long trains of people, men and women, noble strings of cattle, collections of fowls and animals, works of art, domestic manufactures, and staple farm productions; each destined for a place where a farmers' festival is to come off. The cattle seem to hold up their heads with a "wee bit" of an aristocratic air, and blink their eye-lashes with a sort of knowing manner, as if they would have the world know, that they expected to be the lions of the day. Grunters with numerous progeny are huddled together in roughly-constructed cages, and for once, look clean. Horses, nobbies and nags, young and old, graceful nags and clumsy ones, decked off with laurels, and attached to indescribable vehicles, come up with a snort, for a share of attention on these eventful days. These are convened for a grand exhibition; such an one as makes the farmer feel as if he had a *prominent place* in the responsibilities of men.

There have been many festive scenes of the farmer during this present, lovely Autumn. Such an one did I attend but a short time ago. The days

when I participated in such festivities were peculiarly delightful. Many and happy were the human beings that convened together on those days. I will not tell you of the numerous articles in the agricultural hall, save that it was fragrant with flowers and fruit, stored with the substantialities of life, and graced with the productions of art. But I must tell you that I saw a part of the old "frigate Constitution," and an old iron kettle filled with beans, there. Curiosity prompted me to inquire "why the kettle was upon exhibition?" I learned that it was a veritable kettle, which came over in the Mayflower, with our pilgrim fathers. After this explanation, I thought how appropriately it belonged in that agricultural hall. Thought and fancy took me back to the time when the primeval forest had never echoed to the woodman's axe, and when bean porridge was all the vogue. It impressed me of the fact, that farming has been, and is now, a progressive pursuit; for, methought that the pod-augur, the clumsy plow, the clattering and jolting wagon, in contrast with the mowing-machines, the patented plow and planter, and with the elegant vehicles then surrounding me, proved it to be thus.

After the various exhibitions of the two days of festivities, a band of noble, sterling men, repaired to the village church, to listen to an address from a professor. The place, and the presence of gifted minds, made us feel as if science and agriculture were shaking hands more cordially than ever before; and I said, "surely, the farmer knows to-day that agriculture is elevated over former times. After the exercises in the church, the orator, divines, professional men, and the farmers, with their wives and daughters, repaired to a hall to partake of a bountiful repast, prepared by "mine host" of the "American House." Though men and women with farmer appetites sat at the board, all were abundantly satisfied with the luxuries of the table.—Then came the flow of wit, the revealings of educated minds and wise heads, and the statement of statistical facts, which I verily believe made every one go away with new confidence in the union of our republic, in the strength of our State, and in their own individual ability. When it was asked "if the farmers would extend a vote of thanks to the speaker of the day," it was responded to by such an "aye," as I am sure went way down into the heart of the orator; while the ladies looked thanks from bright eyes unto him. Yes! *ladies* were sprinkled amongst that body of men, and looked just as appropriate there as dahlias, roses and blossoms do, in the midst of herbage and foliage. And I believe ladies should be at such places, and that there should be a closer sympathy with their husband's and father's business. The motto, "We are one," was prettily fabricated of evergreens, and placed in a prominent position; which again assured me that I might justly say, that progress, elevation and success were the future glories of an agricultural life; since such a sentiment, in such an assembly, had truly been disseminated and acted upon.

We knew how the editor of the *New England Farmer* would respond to such a sentiment, as he felt his sympathies for the farmer glowing within his soul, and we wished him there to enjoy the beauty of our mountain scenery, the smiles of an October sun, and the peculiar interest and harmony of the whole. But we knew, too, that he was acting his part in some different sphere; and so we could only offer up silent ejaculations for his abundant success. As night approached, the farmers' festival closed; animate beings wended their way homeward; inanimate nature was yet flashing in beauty and brilliancy as I, too, returned from my autumnal gleaning. The embroidery upon nature's autumn mantle was gorgeous to the eye, while the heart was filled with better, more earnest thought, and with deeper convictions of the important part which the agriculturist takes in life's busy scenes. Progress, elevation and success should be his watch-words, while zeal and perseverance should characterize his efforts and undertakings. The harvest moon came up to sail midst silver clouds and heavenly azure, and lent a soothing charm to nature and our own soul. I thought of the turmoil of a city life, compared with a farmer's life of calmness and independence, and wondered why so much disquietude expressed by our New England farmers. That night I sat in the silvery moonbeams, and could only feel to "praise God for his benefits unto the children of men."

Thus ended my day's gleaning. Perchance I may go gleaning again upon some future day, and perhaps you, dear reader, may then hear of my success.

S. S.

For the New England Farmer.

CABBAGES.

My attention has recently been directed to the magnificent crops of cabbages, grown on the southerly border of Essex county, with the aid of the fertilizing substances collected from the neighboring cities, and from the beaches along shore. If I do not mistake, $400 and more has been received for the produce of single acres the present season. When we take into view, that but little time and no peculiar skill is required in the growing of this crop, and that it is as certain as any other crop, I know of no culture that returns a better reward for the labor bestowed. I have known a single acre to yield 60 tons of cabbages the present season. What is there that can be planted that will yield more? Will it be said there is no demand for so many cabbages? I have never known the time when all that were carried into the market would not sell at a fair price, from a *half* to a *cent per pound*. What better article can be grown for the feeding of stock? I remember to have heard one of the best experienced farmers in Essex say it was the cheapest article that could be grown for the feeding of milk cows. Will it be said in relation to cabbages, as it is said in relation to turnips, that the milk of animals thus fed will taste of the feed? A little care as to the time of giving the feed will obviate this objection. Who will argue that farming is not profitable, when the culture of a single acre with cabbage will yield a net profit of more than $200.

November 22d, 1856.

VALUABLE RECEIPT.—Mr. A. Bronson, of Meadville, Pa., says from fifteen years' experience, he finds that Indian meal poultice covered over with young hyson tea softened with hot water, and laid over burns and frozen flesh, as hot as can be borne, will relieve the pain in five minutes. If blisters have not arisen before, they will not after it is put on, and one poultice is sufficient to effect a cure.

"PLOW DEEP TO FIND THE GOLD."

[The following song we remember having seen in an English journal some years since, but it is well adapted to this country at the present time.—ED. O. CULT.]

Plow deep to find the gold, my boys!
Plow deep to find the gold!
The earth has treasures in her breast
Unmeasured and untold.

Clothe the mountain tops with trees,
The sides with waving grain;
Why bring over stormy seas
What here we may obtain?

Oh, Britain need not bring her bread
From countries new or old,
Would she but give the plowshare speed
And depth to find the gold!

Earth is grateful to her sons
For all their care and toil;
Nothing yields such large returns
As drained and deepened soil.

Science lend thy kindly aid,
Her riches to unfold;
Moved by the plow or moved by spade,
Stir deep to find the gold.

Dig deep to find the gold, my boys!
Dig deep to find the gold!
The earth hath treasures in her breast,
Unmeasured and untold.

ROSES IN THE WINTER.

All roses will grow and flower well out of doors, in the summer months; but many cannot withstand the severity of our winters. Some are only injured in their upper branches, as the Hybrid Perpetuals; while others, like the Tea and China roses, are in general entirely destroyed. Some of the China varieties are, however, exceptions to this rule. Roses can easily be divided into two classes, for garden culture—the first including those that bear their flowers on the wood of the current year. Of this class are all the ever-blooming varieties. The killing of the preceding year's wood, does not injure the blooming of this class, but in many cases acts as a sort of natural pruning, that is more beneficial than otherwise. The second class always produce their blossoms on wood ripened during the preceding year. To this family belong all the old garden roses, and a few others, like the Prairie varieties. When the wood of the preceding year is destroyed, whether by frost or any other means, all hope of flowers may be abandoned. Roses of the latter description, that are not perfectly hardy, must, therefore, have some kind of protection. If long and strong growers, their branches must either be laid down and covered with branches of evergreens or straw, or earthed up. Tying to a stake, and sheathing with straw, will do very well for some kinds. The smaller varieties may be put into frames. If "laid in by the heels," that is, laid down with merely enough of mould to separate them, a frame will hold a great number, and they will be in a good condition in the spring. For a small garden, it is best to select those that are perfectly hardy, or such as the Hybrid Perpetuals, that are not injured by having the top shoots destroyed.—When you have proper facilities for wintering the more tender kinds, they will amply repay for all the trouble bestowed upon them.—*Ohio Farmer.*

EXTRACTS AND REPLIES.

HOW TO MAKE HENS LAY.

Will you be kind enough to inform me what is the best course to pursue, in order to make hens lay during the winter? G. W.

Worcester, Nov. 24, 1856.

REMARKS.—Provide them a warm, light, dry place and not crowded. Give them easy access to clean water, and a variety of food, such as corn, corn and cob meal, into which are stirred a few scraps, with boiling water in cold weather, together with boiled potatoes, pounded oyster or clam shells, gravel, pounded dry bones and oats, barley or wheat, if convenient. But the corn, cob meal, potatoes and scraps are the chief items.

Under such treatment, we have never known any breed of hens that did not lay liberally.

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HOW SHALL WE CLEAN PICTURES?

DEAR SIR:—I think you would do a kindness to many of your subscribers, would you give them a safe and economical method for cleansing engravings, but more especially oil paintings. This seems a somewhat odd request to an agricultural paper, but I gather from its tone that you are desirous to meet the wants of your subscribers as far as is consistent with the original tone of your paper. At the risk of being a little tedious, let me explain how my request is in any wise a proper one.

You will agree with me that a picture is a pleasant thing in a house—it recalls a friend, or a favorite scene, or revives a dormant association, etc., to say nothing of an air of elegance it gives to any house, while speaking an audible language of the taste of the possessor.

Old pictures are fast finding their way to this country from Europe; they are almost invariably in bad condition and *very dirty*; among all this rubbish there are some gems, as I can vouch for, for I have a choice little collection, gathered during the last ten years; one of these pictures, I bought for $13 in the morning and refused $150 for it in the afternoon. I do not pretend to say that this will be the fortune of many, what I do say is, that without knowing it, we may often entertain an angel unawares! True it is that there are many professional picture-cleaners among us, but their charges are often so disproportioned to the cost of the picture, as to put it out of the power of many to avail themselves of their service. A SUBSCRIBER.

Boston, Nov., 1856.

REMARKS.—Some of our readers undoubtedly possess the secret, and we wish they would impart it.

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HOW TO RAISE COLTS.

A good colt, I say good, because a poor colt is not worth raising, should be weaned when four or six months old; be put in a warm stable, eight or ten feet square, well ventilated, with a plank floor, and be kept clean—have the best of hay and water, and about a pint of oats two three times a day. Put a coat of common saw dust two inches thick all over the floor, and all that gets wet remove at least three times a week, and add more saw dust in its place. In this way the colt will have no lice.

Keep a good look out, and if his feet grow uneven pare them, that he may stand square on them. I have seen not a few colts, two, three, or four years old, whose feet and ankles were much out of shape in consequence of their feet breaking off on one side, or wearing off, which might have been prevented by paring their feet occasionally. If convenient let him run out in a warm yard, or shed in the day time, after he has done crying for his mother.

I have learned by experience, that saw dust is the thing for horses to stand on. I had rather they would stand on the clean floor than stand on their manure. I think the best thing to cure a horse that is foundered is to let him stand on saw dust—at any rate, I have cured a number in this way. I take off the shoes, keep their feet pared, and level for five or six months, wash now and then with cold water, and eight out of ten will get well. G. V.

Plainfield, Mass., 1856.

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SINKING STONES.

I find many valuable suggestions in your paper, and among them one on the subject of sinking rocks, instead of blasting and getting them out. This fall, I have been clearing up land covered with rocks, many of them too large to be moved by a team. So I set one man to drilling and blasting, but soon found that would not pay. I recollected reading a piece in your paper about digging under, and sinking them, and resorted to that plan, and soon found that one man would sink three times the number that he could blast. The advantages derived from one piece which I worked over in this way has already paid me for last year's paper.

Bethel, 1856. W. H. I.

REMARKS.—You will receive still further benefits, for where you have sunk the stones you have *trenched the land* some two or three feet deep, and if well drained it is in a condition to yield you the heaviest crops, if properly manured. The land is also kept on the same level, or, if anything, raised a little, where the rocks are sunk, and they are still present to attract heat and moisture.

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MR. EDITOR:—A writer in your paper, over the signature of *., speaks of an extra heifer, and wishes to know where a better one may be seen, and at what price. A heifer may be seen at the stable of the subscriber, in Wilmington, Mass., that in January, 1855 made 42 lbs. of butter; in 20 days in October, made 25 lbs.; in the whole season, she made 375 lbs. She was three years old June 3d, 1855. In July, 1856 she made 17¾ lbs. of butter in one week. The first nine days in September, made 18 lbs. 10 oz. Price *five hundred dollars.*

Yours, &c., ASA G. SHELDON.

Wilmington, Nov. 24th, 1856.

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THE HUBBARD SQUASH.

Thanks to J. J. H. G., *Marblehead*, for a specimen of this squash. We intend to test it.

The seeds of this squash so kindly sent us a year ago, were planted on a good soil, came up readily, made large and vigorous vines, and blossomed profusely, but—produced no fruit! Not a squash set on them all. Was this a "sport of the season," friend G., or did they need fructification from neighboring plants? We should be glad to try again, if you can spare a few seeds.

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PRODUCT OF AN ACRE.

Two years ago this summer, I raised on one scant acre of ground on my farm, forty bushels of good sound corn, one hundred and fifty bushels of potatoes, seven large cart loads of pumpkins, fifteen bushels of carrots, twenty bushels of turnips, three bushels of onions, forty cabbage heads, one bushel of beans; after using all we needed for our family, and a lot of peas, more than we needed, and fifteen bushels of sugar beets. G. V.

Plainfield, Mass., 1856.

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BLACK TEETH IN PIGS.

MR. EDITOR:—Is there any such disease as the *black tooth*, or *tush*, as it is called? I have examined medical works, but can find no such disease described. Last summer I had a nice thrifty pig which died instantly while feeding. On examination I found two small teeth on each side of the under jaw that were black. A year ago I had a pig die not quite so sudden. The *same teeth* were black. On examination we found the heart extended, the pericardium nearly gone, blood, coagulated, adhering to the back bone.

Can any of your readers tell me what ailed my pigs? I was informed a few days since, that on board of vessels rosin was given to hogs for the scours. Have any of your readers tried it, if so with what success?

REMARKS.—Who can answer these queries?

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ABOUT HEDGES.

There was an allusion to hedges some time ago, in the *Farmer*, by H. F. French. I wish to inquire of him what kind of plant is best, and would be fitted for the northern part of Vermont. I should like to procure something fit for a hedge ornament, and fence too, in front of my buildings.

Parkersfield, Vt., 185 HORACE DENIS.

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CORN AND PUMPKINS.

Captain Cook, of this town, has one acre of land that he has plowed but once a year and planted the same with corn and pumpkins for eighteen years in succession, and has had not less than forty bushels of corn every year, and more or less pumpkins; has always put in each hill about half a shovel full of common barn manure, and has applied no other kind of manure in any shape.

May be some one that talks about rotation in crops will like to read this. G. V.

Plainfield, Mass., 1856.

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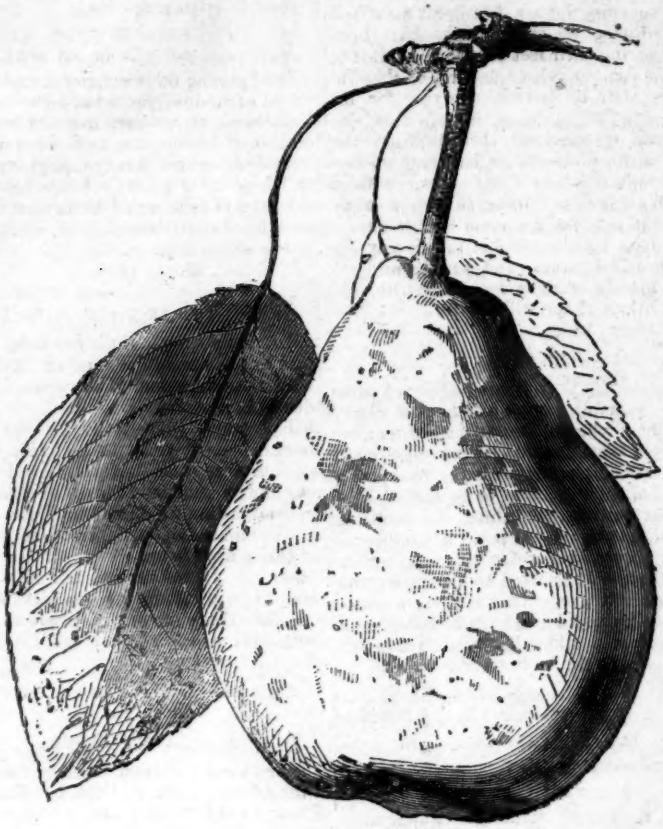
HOW IS CHAMOIS LEATHER MADE?

In a late number of the *Farmer* you gave a receipt for dressing skins with the fur on.

Now, can you tell us how to prepare them soft, without the hair, i. e. make *chamois* of them? How do the Indians and Backwoodsmen tan deer-skins for jackets, moccasins, &c.? D. C. K.

Nov. 4, 1856.

REMARKS.—We do not know—who does?



THE NOUVEAU POITEAU PEAR.

The subject of the beautiful illustration which we now present, grew in the grounds of Col. M. P. WILDER, at Dorchester, and was kindly furnished to us by him when it was fresh from the tree. He has also supplied us with the subjoined description. Few, if any persons in our country, have given so much, and such enlightened attention to the cultivation of fruit, and of pears especially, as has Col. Wilder—and his success has been equal to his efforts.

"The Nouveau Poiteau," he says, "is one of our modern pears, emanating from the renowned collection of the late Dr. VAN MONS. At the time of its promulgation, it created quite a sensation, and gave promise of being a fruit of great excellence. It has not, however, fully sustained its high expectation, but considering the large size and abundance of its fruit, the great beauty, vigor and hardiness of the tree, it must be regarded as a valuable addition to our late autumnal pears. *Size*—large, three and a half inches high, by two and a half at its greatest diameter. *Form*—obovate pyriform, slightly contracted in the neck. *Stem*—rather short and stout, inserted a little on one side, and frequently in a fleshy protuberance at the base. *Calyx*—small, closed, sometimes without segments, sunk in a narrow moderately deep basin. *Color*—dull green, overcast with dots and tinges of russet, and occasionally with a brownish red cheek. *Flesh*—very melting and buttery, and fine grained, with a sweet, melon-like flavor. *Season*—November. *Quality*—*'Very good,'*—an excellent orchard variety, exceedingly prolific, the fruit adhering to the branches and resisting the storms and gales better than most other sorts. It succeeds well on the quince or its own stock, comes early into bearing, and as a pyramidal tree is not surpassed by any other in cultivation."

For the New England Farmer.

ON WINTERING BEES.

MR. EDITOR:—A word or two upon the above topic may not come amiss to the many readers of the *New England Farmer*, at this season of the year. I do not purpose to give my own experience in this matter, as that of others, which I have derived from books, and from correspondents who have had a large experience in the management of bees. First, then, out of a large number of works which I have consulted on the subject, the larger number of them agree, that where an individual has but a few stocks, say any number under ten, it is better to winter bees in the same place they have occupied during the summer. I derive the same information from correspondents. A gentleman writing to me from the State of New York, who has at the present time over two hundred stocks, says the same; another who has over fifty, writing from New Hampshire, says this is the best way for wintering a few swarms; but when the number is large, he prefers a bee-house, built on purpose for the business. A building with a a good dry cellar, and the apartments dry, and well ventilated, so constructed as to exclude all light. Reasons given—that when there is a large number of such stocks, placed closely together in a dark room, they will, by their own heat, bring the temperature of the room up to that standard, where they will keep healthy, and thrive well; but unless the number is large enough for this, it is far better to let the bees take their chance out of doors.

One recent writer condemns, under any circumstances, housing bees; however, this is the only way that many weak stocks can be preserved; but then, the question comes up, whether such swarms are worth the trouble, or not. In many cases, I have no doubt it would be better to let them take their chance, "upon their own responsibility." If the apiarist understands his own interest and business in their management, he will be careful to have only healthy and strong stocks to carry through our severe winters. In our New England climate, the great trouble is with the warm days which we are apt to have, following or preceding severe cold ones; it is this condition of the weather which does the mischief. Bees will stand almost any amount of cold, provided it be continuous, and they are well supplied with winter stores. I have one small stock which I intend to experiment with, by bringing the same into my study, where the thermometer stands from 65° to 70°, day and night, and placing them under a glass case, well ventilated, and supplying them with honey as they may need. My opinion is, that most persons who keep but few bees, do not give them the attention or care which they need. If they have been properly attended to in the fall, the hive put in good order, the stock large and healthy, well supplied with honey for winter use, and then properly attended to during the winter, the loss will be small, and they will appear satisfactory in the spring. I may have more to say on this interesting branch of farm economy, as my experience enlarges; my advice is, let all large and healthy stocks remain where they have been through the summer, and examine each hive as often as once a week through the winter.

But I ought to say something on "ventilation." This is all important, in order to have them winter well. Says a large manager of bees: "Not one bee-keeper in fifty knows the meaning of the word ventilation. It is of great importance that every bee-hive be so constructed that it may be ventilated upon scientific principles. And, in order to have a bee-hive properly ventilated, it must be constructed so as to admit fresh air at the bottom, and allow the foul air, caused by the breath and animal heat of the bees, to escape freely at the top." Whether the first sentence of my quotation be true or otherwise, any one at all acquainted with the management of these "little fellows" knows, if he has ever examined his hive upon a cold morning, when they do not have plenty of air, that there is a large quantity of moisture upon the inside of the hive. This moisture, unless got rid of by free ventilation, forms in cakes of ice in the inside of the hive, and is often the cause of death to many of the bees. Those who have hives with a glass window, can easily verify this by taking the trouble to examine. It is not enough, simply to let the foul air and heat pass off into the chamber of the hive.

This I have tried to my satisfaction; it does not accomplish the purpose, and he who does nothing more will suffer a loss in his bees, that is, if your hives have chambers to them. What would you do then? Well, I think I would bore three half-inch holes in the front part of the hive, just under the projection of the top board, having them about two inches apart, and let them remain open through the cold weather. And if I had none but the old fashioned box hive, I would treat it in the same way. Should you strike the comb in doing so, no harm will be done; your bees will find the warmest part of the hive, and there they will stay, during the cold weather.

This is a very important matter in successful bee culture, and the trouble is little, and none at all, if already attended to. A word about painting your hives. There is no better time to do it than now. If you take some cold day for the operation, your bees will not disturb you, and will be all the warmer and more comfortable from your pains; of course, all cracks, &c., you will thoroughly putty up; and you would not think, I guess, of using anything but the best of white paint. Then how nice and trim they look; really, quite an ornament to that snug farm or garden of yours. At the proper season, I may have something new to say upon this old subject.

T. Q. N.

December, 1856.

For the New England Farmer.

A PROMISING HEIFER.

MR. EDITOR:—In the *Monthly Farmer* for November, (page 519) mention is made of Mr. Osborn's heifer, that came of the Huntington cow; but of her butter-making qualities no opinion is expressed; the same not having been accurately tested. I am now informed by her owner, that during the month of October, *on grass feed only*, she yielded *eight and a half pounds of butter per week*. This, for an animal of her age, that came in early in the season, is a good product. There may be those of foreign breeds, that do better. The fact is stated just as it came to my knowledge; if any one has a better heifer than this, I wish he would mention where she can be seen, and for how much she can be purchased. Before she calved $50 was offered for her—now she cannot be bought for less than $100.

For the New England Farmer.

HISTORY OF THE SWALLOW FAMILY

No. IV.

BY LEANDER WETHERELL.

The Chimney Swallow, or American Swift, *Hirundo pelasgia*, of Wilson, and *Cypselus pelasgius*) of Audubon and Peabody, well known to farmers, from the circumstance connected with the history of these birds, to wit, that of selecting the chimney as the place of nesting. Before this country was settled by Europeans, they selected hollow trees as the place for building their nests. There are many interesting facts concerning the resort of these birds to hollow trees. It is maintained by some, that they remain in hollow trees in a torpid state through the cold season. These were called swallow trees.

Dr. Williams, in his History of Vermont, mentions several of these trees; one in Middlebury, one in Bridgeport, and one in Hubbardston; all elms. About the middle of May, these birds, says the doctor, were seen to issue from these trees early in the morning in immense numbers, and return into them again in the evening, just before dark. The same phenomena were observed again, during the latter part of summer, just before their disappearance; and, as the departure of these birds to the South was not observed, it was generally believed that they spent the winter in these trees, in a torpid state, remaining thus, until they were observed issuing from them in May, the time of their return from the South, when they revisited the "Swallow trees."

Audubon, that acute observer of the habits of birds, who made these the study of a life-time, remarked that he well remembered the time when these birds resorted to trees for breeding, in lower Kentucky, Indiana and Illinois, adding that in the wild portions of our country, they still frequent hollow trees, both for breeding and roosting. The hollow sycamores of the largest size were their favorite resorts. He speaks of a tree that he had cut, that contained about thirty nests in its trunk, and one in each of its hollow branches.

While in Louisville, Ky., he became acquainted with Maj. Croghan, who asked Mr. Audubon if he had seen the trees where the swallows were supposed by some to spend the winter, but which they only entered, he said, for the purpose of roosting? Answering in the affirmative, the major directed him to a tree, remarkable on account of the immense number that resorted to it. Having found it, a sycamore, about seventy feet high, and nearly destitute of branches, about eight feet in diameter, at the ground, and five at the elevation of forty feet, a hollow branch two feet in diameter projected from the main trunk. Through this, the swallows entered and left. Resorting thither at eve, just before the going down of the sun behind the blue hills, thousands of swallows were seen flying above the place of observation, and occasionally, three or four would enter the hollow branch, like bees returning to their hive. Remaining until dark, I then left the place, though they still continued to enter. The number was too great to be counted. A thunder shower soon passed over the place, which reminded me, says A., that they resorted thither to avoid it. The following morning found me at the place of observation before light. Placing my ear near the tree, all was quiet within. Remaining in this position a few minutes, and suddenly it seemed as if the tree was coming down, which caused me instantly to leave my place of observation. Looking up, I beheld one continued stream of swallows issuing from the place of entrance. It required about half an hour for them to leave the tree.

The next day, I procured a man to cut a hole through the shell of the tree, which was about eight inches in thickness. There was revealed a matted mass of exuviæ, feathers, quills, &c., nearly six feet in thickness. As night approached, this hole was closed, lest the light should alarm the birds on their entrance, and cause them to abandon the tree. The swallows returned, as usual, at eve. After several days, I went about nine o'clock in the evening, to examine the interior of the tree. Opening the hole, I, with my companion, entered the tree, and, after scrambling over the guano, I brought the light to bear on the inner sides of the tree, when the swallows were observed, clinging side by side, covering nearly the whole inner surface. They remained quiet. Satisfied with what we had seen, I closed the lantern. We then caught and killed about a hundred, and left the tree, after closing the hole. Of the one hundred and fifteen birds taken, only six were females, eighty-seven adult males, the remainder having the appearance of being young birds, probably, of the first brood. Audubon made a calculation of the number that probably resorted to this tree, and concluded that not less than nine thousand came to this single tree to roost.

I visited the tree again on the 2d of August, the number still remaining about the same. Continuing to watch the tree, on the 13th, not more than two or three hundred came hither to spend the night. On the 18th, not one was seen near it, though a few stragglers were seen, flying toward the south. In September, I entered and examined the tree at night, but not a bird was to be seen. I visited it again in February, and satisfied myself that the swallows had all left the country. I closed the entrance at the base and waited until spring. May came, and so did the swallows, the wanderers of a warmer region, and resorted at evening to the old sycamore tree, to roost. About the first of June, I attached a string to a bundle of straw, which was placed in the hole. The birds returned to the tree as usual, at evening. They passed and repassed, manifesting much anxiety. Finally, they began to depart. The straw being removed, they at once began to enter the tree, and continued to do so, until dark.

Leaving Louisville for Henderson, I did not revisit the tree for five years, when the swallows were noticed as before. Soon after, the old tree yielded to the force of the winds, and thus was destroyed the swallow roost, for they resorted to the chimneys for roosting.

It seemed necessary to be somewhat minute in dwelling upon this habit of these birds, for, as the reader knows, there were many formerly, and *some, even now*, that maintain that the chimney swallows winter in hollow trees. Proof: they are seen coming out of these trees in the spring.—True; but you must remember that they went into these trees after returning from the south before you saw them coming out, as is known to such c

have carefully observed and watched these birds, in order to learn their habits and write their history.

Perhaps all are not aware of the fact that chimney swallows feed their young during the night as well as by day. This habit has often been confirmed by the observation of the writer. Some people are opposed to allowing these birds the use of their chimneys for nesting, for the following reasons, to wit: they make a disagreeable noise in the chimney during the hours for repose; secondly, they dirty the fire-place, if there be one; and thirdly, the nests not unfrequently fall into the fire-place. Those who would prevent these annoyances, can easily do so by placing a wire screen over the top of the chimney, that will keep out the birds, and not materially prevent the passage of the smoke.

The chimney swallows usually appear about the same time that the barn swallows do, and leave a little sooner for their southern home.

SALUTATIONS.

The old chimney-pot hat we have entirely discarded. It had some merits, but they were very few. It nipt the head, leaving an ugly segment on the forehead of livid, or purple, or red. It loomed up so high, that if *there were* a star a little lower than the rest, it was sure to brush its tail; and leaning the head against the window, and catching a nap in the cars, with a chimney-pot hat, was entirely out of the question! Its advantages were, that you might knock down a highwayman with it, if you could find one, or he find you, pass a river when you could not make the ferryman hear your call, or use it for getting a crop of apples or potatoes. We have rejected this old abomination for the light, pliable, and symmetrical Kossuth, (name of glorious memories!) But there is one quality lacking in the Kossuth, which the old rejected possessed. We had imagined ourselves before our readers, now a company of more than one hundred and twenty-five thousand strong, and were attempting to bow to them with Pickwickian grace and suavity—but the Kossuth would not be lifted, it stuck like a burr, or clung to the head like a wet night-cap. It could be forced into an oratorical attitude, but would lop like a dead chicken's wing, and hang at the ends of our dexter digits, the moment the impetus given it was gone. So, like Corporal Trim, we dropt the hat, and wished the company *A Happy New Year* without it.

Perhaps it was just as well. If the heart be right, little will be cared for the hat. Accept, then, once more, kind friends, our cordial salutations. If the perusal of these pages has afforded you as much pleasure as the gathering of them has us, there will be no disposition to sunder the connection which it is hoped may long be continued. The advantages desired are certainly mutual. While you do not expect entire exemption from error, we lay no claim to stores of learning, not accessible to the common mind, but carefully gather up the "unconsidered trifles" of others, and by giving them a "habitation and a name," may sometimes return them to you as "pearls of price." We have industry and a quenchless desire to promote the interests of the farm; and these will not be turned from their true purpose by any seductions of court or camp, save, only, if need be, for the redemption of Kansas.

The same interest continued on your part, the same promptness of payment, of inquiry, and communication, will enable the publisher to increase the value of the paper wherever opportunity presents itself. If *intelligent labor* is valuable in the workshop and manufactory, it must be doubly so on the farm, for there *the judgment* takes the lead instead of rules. It is through the agricultural paper that the practices and experiments of others are to be made known, even to the practical man; and to the young farmer, they are invaluable text books, furnishing an outfit, as it were, to start him in the voyage of life. If he is to plant an orchard, all that long and expensive series of experiments which others have gone through with may be avoided, by studying the plain statement of some one who has reduced it to writing and had it printed, after a personal knowledge of what he writes; and so of every other branch of farming. Not that this will be an infallible direction for all his affairs, but like the guide-post, will point the right way. He must keep his eyes open, observing the path indicated, and read, judge, and decide for himself.

Intelligent labor on the farm is not sufficiently appreciated among us. If help is boarded, it is cheaper to pay $16 than $12 a month, if both sums are alike earned; for in one case we get four dollars worth more of labor in a single month, at the same cost of board, than in the other. This subject, in the course of the year, we propose to present with some care.

But we will not anticipate. The way will undoubtedly be pleasant, cheered as it will be by efforts of usefulness, and the year, we trust, will be one of progress and profit to all. So, as did Corporal Trim, after his "infinitely striking" speech, *"Are we not here now; and are we not gone! in a moment!"* which caused Susannah to burst into a flood of tears, and melted Jonathan, Obadiah and the cookmaid, we pick up our hat and retire!

AWARDING PREMIUMS.—It is suggested by a correspondent of the Ohio *Farmer*, that all Committees of Award be required to specify, in their reports the individual merits and demerits of the competing animals, and clearly state the points in which the preferred animal excels. We believe that the reports of Committees are very deficient in this respect, and we are also aware of the diffi-

culties in the way of securing distinct and intelligible reports. But of what possible use is a premium or reward when nobody knows why, or for what, it is awarded?

WHAT I HAVE SEEN OF NEW AGRICULTURAL TOOLS.

In a recent number of "*Life Illustrated*," a paper published by Messrs. FOWLER and WELLS, New York, we find an article which goes to show that there are, after all, some people in this world beside captains and generals, ministers, plenipotentiary, and honorable members of this or that fiddlestick society:—people who *profess* nothing, but *have accomplished* more for mankind than all the thousands whose constant anxiety it is to "fill the speaking trump of future fame."

The article to which we allude was written soon after the great agricultural exhibition at Philadelphia, where there was probably the largest and best collection of agricultural machines and implements that has ever been presented at one time and place. The writer commences by asking the following significant questions:

READER: What have you seen, heard, or learned, in all your life's experience, that would be of service to mankind? Have you invented or discovered anything new?

Yes, I have seen some things during some of my late experience of life that, if known to my fellowmen, would be of vast service to mankind, for they reach back to first principles, and touch the arts of life to make life easier; that is, make the productions of earth that enables civilized man to sustain life in a state of civilization, easier to obtain. Without these arts—without the aid of machinery to enable man to increase the productions of earth, earth's inhabitants could not live; for there are but two modes by which men are fed—one comes from the art of the hunter, and the other from the art of the husbandman.

AGRICULTURAL IMPLEMENTS.

This, then, is one of the things that I have learned—that Broadway and Fifth Avenue could not be built without the aid of the plow—that this city could not be fed at this day if there had been no invention of earth-workers. New England soil produced that which has overcome its sterile nature—inventive men—men who have invented

PLOWS

as the first of all important earth-working tools—men who have devoted lives of toil and study to this work. What a monument JOEL NOURSE has built to himself—more noble and more enduring than that of Franklin in the city of Boston. His name is printed upon ten thousand plows every year, and he is known in every State of the Union. He is an original inventor, improver, and patron of inventors of all sorts of tools that increase earth's productions.

I am asked if I have ever heard of anything that would be of service to mankind? Yes, I answer, I have heard of KNOX, of Massachusetts. Not Knox the General, of honored fame, but Knox of a fame more honorable—the fame of an inventor and improver of plows—the man to whom letters patent have just been granted for the discovery and application of a principle based upon accurate calculations in mathematical

SCIENCE IN THE CONSTRUCTION OF A MOULD BOARD.

Where others have left off, Knox has begun, and now shows that a mould-board—a crooked, curving, twisting section of a screw, is, when scientifically constructed, a series of planes; and no matter how long or wide it is, if it is rightly constructed, a perfectly straight rule will touch and make a close fitting joint when laid down in the direction of the furrow slice. This, then, is a discovery that will benefit mankind, if mankind will think; that a mould-board of a plow is simply a section of a screw; that the operation of turning the earth is just that of the screw; and the screw, as all know who think, is nothing but a combination, or rather, succession of inclined planes, of easy ascent, and every one of which in its section is as straight and true as the inclined planes up the mountain side, by which the ponderous engine ascends to the summit. So ascends the earth from the sharp wedge point of the plow, turning its regular screw twist half way, or entirely over, by which every particle of earth is disintegrated from its fellow.

It is a discovery, then, worthy of the age of inventions, that every variation from the form of true planes, such as convex or swells in the mould-board, are just as inconsistent as it would be to make knobs or swells upon a screw auger, with a view to facilitate the ascent of the chips.

SUBSOIL PLOWS.

I have not yet done with discoveries in plows. The improvement of MAPES, as carried into effect by Nourse, Mason and Knox, upon the subsoil plow, entitles him to the rank of a discoverer—a benefactor—for he has enabled the farmer to do an important work with one yoke of oxen easier than he did before with three yoke. This plow creeps along under the hard pan below the soil, producing exactly the same effect as does the mole; lifting up and crumbling the earth above, and leaving a tunnel below for the passage of water or air. It is a great invention—it makes two blades of grass grow where but one grew before.

MICHIGAN PLOW, AND DIGGING-MACHINE.

Perhaps of all plows ever invented, that most commonly known as the "Michigan plow" is the implement that puts the land in best condition for tillage, at one operation; though not quite equal to the "digging-machine," invented by Gibbs, and perfected by Mapes, by attaching his subsoil plow to the same frame, so that upon land in good tillage, one yoke of oxen travels as fast with a plow, loosening the earth fifteen inches deep, and mellowing a strip two feet wide, six or eight inches deep, and fine as though it had been lifted and shook up with a fork.

GANG PLOWS.

Once more of what I have discovered new in plows. I have discovered one long desired by the farmer; particularly the farmer who thinks—has thought, that a harrow drawn over his fields, though it loosens the surface, compacts the soil below, and after all, is not the implement that he wants to cover his broadcast grain. He wants a plow that will turn a small furrow. Hence the invention of gang plows. They are all too heavy,

and require too much time. To displace the harrow the cultivator was invented. Neither gang plows nor cultivator was the tool the farmer wanted.

GANG CULTIVATOR, OR SEEDING PLOW.

Knox the inventor, with Nourse the patron, determined to fill this want, and have just brought out a new tool called the "gang cultivator." I would call it the "SEEDING PLOW," it is so admirably adapted to that purpose. The same team that would draw the scratching harrow will draw the seeding plow, and, according to the plowman's desire; turn four, six or eight little furrows, so as slightly to cover all the grain in such a manner, that when it grows, it looks as though it had been planted in drilled rows. This implement is very simple, light and cheap. This is its description: In form it is unlike any other cultivator, except its little steel plowshare-like formed teeth. It is more like an X than a V. Take hold of the upper end of the left-hand top of the X and set it up perpendicular, and call that the beam, to one end of which the team is attached, and to the other end the handles. Projecting down from the forward end is a sharp tooth, that serves as a guide to keep the instrument in a right line of draught. At the hind-end is another guide-tooth, that serves also as a fulcrum, upon which to lift the forward end, by a twist upon the handles, when the guide-tooth catches a root or stone. Upon the other branch of the X the little turning plowshares are fixed, so that eight five-inch furrows are turned one after another, leaving both seed and land in the best condition to grow. I have rarely discovered an implement that bid fairer to do its work rapidly and cheaply, and give greater satisfaction to the husbandman, than this new invention—this so-called "Knox's Gang Cultivator."

OPINIONS AND PROGRESS.

Decision is a trait of character that is almost universally commended. A man who has no opinion of his own, whose mind is never "made up" on any subject, is generally regarded as an undesirable neighbor, and as a poor citizen.

But however much we may admire this quality, as manifested by ourselves, or by those with whom we associate, there is, perhaps, none that bears so poorly "the test of time," none that appears so unamiable on the page of history, none that so often forces the "blush for our kind," as this same decision of character.

Men would not stop to reason. They had not patience to investigate. Nor need they do either. Their minds were made up. They were decided. And so the most valuable discoveries and the most important inventions have been pronounced humbugs, and, if possible, strangled in their infancy; and the man who introduced to the notice of his fellows, the machinery of the heavens, and he who invented the machinery of the saw-mill, were alike made to feel the stern rebuke of that decision of character which ruled their day.

Talk to Islam of a new invention. You perceive nothing undecided in his countenance. If it is in the Koran, all right, and he has no need of your teaching; if not in the Koran, then he will not have it any way. The Christian church has often manifested a decision of character, that, when examined after the lapse of a century or two, assumed a worse aspect than indecision and wavering would have presented.

Even farmers often make the possession of this trait of character quite manifest. Their boys, more especially, are very decided. They have made up their minds that farming is not a fit business for such promising youths as they regard themselves to be; and he who attempts to turn them from their purpose of seeking an easier path to fame and fortune, will find little cause to lament the want of decision of character in "Young America." Or, try the old folks with some new project—better education, improved implements, different modes of cultivation, draining, subsoiling, mowing machines, or locomotive plowing,—and see if they are put into a maze of indecision and irresolution by your eloquence. Have you thrown them off their guard and made their heads swim in confused hope and wonder, or have you not, rather, raised a sparkle in their eyes, that seems to ask if you see anything green there? Will they not show you that they have opinions of their own, and can express them; that they possess altogether too much decision of character to listen patiently to the details of your projects, or to adopt your suggestions, unless they happen to correspond with their own practice, or with some of their own preconceived notions?

We have been led into this train of thought by an extract of a plea made by a lawyer in 1825, before a committee of the House of Commons, against a petition of the Liverpool and Manchester Railway.

"But they tell you they are to have steam carriages—locomotives, as they are to call them—with which they are to do incredible things. Look at their prospectuses, their pamphlets, and all that they have put before the public on this wild scheme. Here is one of their pictures, with a long imaginative description, setting forth that it is to run at ten, twelve, or even fifteen miles per hour. Of course, they make no such pretence before this committee; quite otherwise. Mr. Rostrick tells you that he *believes* they will go eight or ten miles an hour. Mr. Stevenson thinks they will go six, and is confident that they will go four miles an hour with considerable loads. Very moderate, indeed, compared with the extravagant pretensions made where they are less likely to be scrutinized with intelligence; but still, as I think, much more than they will realize, if this visionary scheme is sanctioned, and actually carried out. Sir, I know something of the country in which this alleged improvement is to be attempted, and with no disrespect to it, I must say that it has a full share of rainy weather, when, from the slipperiness of the rails, it will be impossible for these vehicles to go at all; and all traffic, of course, must be suspended in wet

weather, or carried on by horse-power. But, even in dry weather, I question whether they will go at two and a half miles per hour—the common speed of a draft horse. But they must make some pretense, other than that any know means under heaven can make their rails useful; so they set up this hobby of pamphleteers and picture-makers, and trust to the chapter of accidents to turn up something else, if this fails them, when actually tried. Four miles an hour! that is one thing not yet proved, however. But another story has been told to the deluded subscribers. They were to gallop from Liverpool to Manchester at a speed which the mail-coaches have attempted, but failed to accomplish; and it is for this committee to say whether they shall be swindled out of their money on such impudent pretences, and whether Parliament shall disgrace itself by sanctioning a scheme so wild, wasteful, absurd and reckless, for the sake of filling the pockets of engineers and a multitude of other leeches, who will get *their* pay, so long as they condescend to work, whatever may be the losses of those who furnish means to pay them."

This extract is rather long; but we think it has a rich lesson for most of us. Our own opinions, twenty years hence, may appear to others, as these expressions now do to us. Their author, though a lawyer, was probably sincere and decided in the sentiments he uttered. Intelligent men then talked in the same strain. Yet in fifteen or twenty years after this gentleman stood before the parliamentary committee, arguing the impossibility of going at all in rainy weather, and expressing his opinion of the improbability, even in dry weather, of the locomotive attaining a speed of two and a half miles per hour, it was "galloping" at the "extravagant speed," not of "twelve or even fifteen miles an hour," but of seventy-eight!

Not quite as suddenly, perhaps, as the locomotive has done its work, but just as surely, we believe, will the "car" of agricultural improvement pursue its way, till many of the opinions which now block its wheels shall be ground into dust, or be left behind, like those of our lawyer, to mark the progress that shall have been made.

For the New England Farmer.

HORSE COURSES AT SHOWS.

MR. EDITOR:—I have noticed a number of communications in the *Farmer*, on the subject of horse racing at agricultural fairs; but none of them seem to suggest any mode whereby the evils threatened may be obviated. I agree with all of them, that the horse is a noble animal, and should be the pride and care of the farmer, but *not* as a *race-horse*. I have always looked upon the practice of racing as fit only to be ranked with Spanish cock-fights and bull-baits. True, speed is one of the prominent ideas of this fast age, but let it be obtained by mechanical, and not by animal, power. It is alike the interest of the farmer, as well as the livery-man, to encourage the taste that exists for a good and elegant horse, one that combines both beauty and utility; but what of either is there in *racing?*

It is, too, the interest of the livery-man to discourage this mania for *fast* horses, and fast driving, for this it is, that, more than any one cause, depreciates his stock. I would have the horse-course remain, and let the managers of fairs encourage by suitable premiums, the exhibition of the beautiful and useful, in the display of both horses and *carriages* on the course; for what more innocent and pleasant recreation for a family, parents and children, than to jump into a fine carriage on a pleasant day, and "draw the ribbons" over a steed that is all life and animation? And may not a taste for this tend to draw away youth from other amusements of a more questionable nature?

This course, if adopted, might harmonize the horse exhibitions with the other interests of the societies, and be found to *draw* quite as well with the same effort. R.

REMARKS.—In discussing this subject, some of our correspondents use the term "racing." There may have been *racing*, strictly, in some cases, but we are not aware of it. The matter, however, is well enough understood, we suppose; it means the introduction of *fast horses*, (and that term needs no definition,) into the show grounds, and giving them an undue preponderency, in premiums and attention, over other branches of the exhibition.

STATE BOARD OF AGRICULTURE.

The State Board of Agriculture held two or three meetings at its office at the State House last week, Hon. MARSHALL P. WILDER, presiding. During the discussion the subject of the exhibition of horses at our county fairs was introduced, discussed, and referred to a committee. We suppose the discussion had special reference to the propriety and expediency of erecting trotting courses, for on the question of introducing the Horse himself, there can be but one opinion.

The committee on *crops* and *fertilizers* made a report relating their operations with various manures. There is an immense reservoir near the Institution at Westboro', which catches the water of the buildings, and the committee stated that from $5 worth of this waste, *eighty-eight* bushels of corn were raised.

It was also voted that the committed recommend a series of experiments with the Chinese sugar-cane next season.

Col. WILDER, Col. NEWELL, Major POORE, W. G. LEWIS, and CHARLES L. FLINT, were appointed delegates to attend the next annual meeting of the U. S. Agricultural Society, to be held in Washington, on the 14th of January.

We expect some interesting and instructive statements from the Board in its next annual report, in relation to their proceedings on the State farm during the last year. They have been conducted by gentlemen eminent not only for their ability and experience in such matters, but for their unfaltering zeal in promoting the art every where.

For the New England Farmer.

MATTERS IN NOVA SCOTIA.

Mr. Editor:—As our county is so intimately connected with your State in friendship and commerce, and as the more it is known, the more it will be favorably regarded; will you permit me through the columns of your invaluable monthly to present you an outline of the capabilities and resources of it? The most important part, as regards productiveness and access to market, consists of a valley (the admiration of all travellers) lying between two parallel ranges of hills called the North and South mountains; the Annapolis river runs through the centre dividing Wilmot town, and separating the towns of Annapolis and Clement on the south from Granville on the north; there is also a valuable slope along the shore of Fundy Bay—which bounds the county on the north. Annapolis, as you are perhaps aware, has long been noted for its orchards and dairy produce, also for grain, potatoes and hay, besides which I may allude to its vast forests for fuel and timber, and its very rich veins of iron ore, copper and various mineral accumulations as yet but little developed. Now as to fruit, the Annapolis valley takes the lead in the provinces; the soil seems peculiarly fitted for apples, pears, quinces and plums; and almost every farmer is waking up to the renovating his old orchards and planting new ones; even Messrs. Sloven, Slack & Co. (rather too numerous a firm) may be seen pruning, scraping and grafting their ragged apple wildernesses, plowing and manuring the ground, and exulting over the increased yield of the trees. Our most profitable varieties are Nonpariel, (Roxbury Russet) Vandervere, Bishop, Pippin, Rhode Island Greening, Spitzenberg, Early Bough, with many good fall and winter seedlings, and recent introduction from the United States.

In the present state of the markets it is my opinion that 5 or 6 varieties of apples is sufficient for profit, but when through the increase of the neighboring towns, aided by a contemplated railroad lengthwise through the valley, a home market is created, perhaps a larger list of fruit may be safely propagated. I understand that 40,000 barrels of apples were shipped in 1854 from the river ports, besides vast quantities from the Bay shore, giving, as the valley is only 46 miles long, with an average width of 3 miles, and no fruit is raised on the Fundy slope, a fair idea of the fruitfulness of the beautiful vale. One large orchardist assured me that he took fifty-five barrels winter fruit from five trees in one year.

As to butter and cheese, Annapolis stands high, many farmers receiving $20 worth from each of their cows on an average; fat cattle and sheep and horses are largely raised and exported. For grain, the county is well fitted; for Indian corn is largely raised, though somewhat uncertain, on account of wire-worms, early frost, and inattention to the requirements of the plant; all which may be remedied, first, by sowing buckwheat 2 or 3 years to kill the worms and mellow the soil. 2, by selecting the earliest ears in the field for seed, and 3d, by studying the nature of the plant, and applying the manure most suitable, and the cultivation the most proper. Wheat, after enduring the ban of the weevil for 10 years' is now extensively sown, many new varieties being added, including the Black Sea, or Golden Straw, the Club wheat, and last, not least, the so called Java, now very generally sown. It can be sown the last of May, and cut the middle of September, thereby escaping both weevil and rust; very large kernel, straw golden orange, large and stiff, a great yielder, with one drawback, as every good article has. It must be cut very soon after the milk or it will half shell and waste in the field. I have threshed out at the rate of a bushel from 13 sheaves; can you or your correspondents tell me ought of its history?

In conclusion, let me say that a more enlightened and liberal view of our obligations to mother earth, of the return she requires, of the advantage of encouraging agricultural literature, and the introduction of improved implements; of the economy of saving manures, of neatness, and increased attention to the comfort of stock, thereby saving provender, is obtaining and is practically acted upon throughout the county. Three kinds of horse-rakes, with cultivators, seed-sowers, cast-iron plows of many kinds, &c. &c., are in use to the great profit of the owners. Annapolitan.

Clarence, Annapolis Co., Nova Scotia, 1856.

Remarks.—We owe Annapolitan an apology for not sooner publishing his interesting communication. His others—which we hope he will send us—shall not get strayed away into "pigeon holes" seldom visited.

LADIES' DEPARTMENT.

MAKING A FIRE,

These cold December mornings, is a very necessary domestic item, and to do it certainly and quickly, will save more growls and whines, and blessings "over the left," that the glibbest tongue could *"get over"* at a two-forty rate in a year. Not only will it prove a saving of passion, but a saving of pence; for as it usually happens, the right way is the cheapest in the end. In the first place, if you are a bachelor or a maid, it is discreditable to you if you do not kindle your own fires. What life it would infuse, how perfectly it would wake up a lazy sleeping child, if compelled to bounce out of bed at daylight of a winter's morning and light the anthracite! It sends the lazy sleeping blood to the remotest extremities, and quickens the whole body,—it vitalizes the man. *General Washington made it a practice to build his own fire at Mount Vernon:* and shame be on the young man or young woman, however rich the parents may be, who would feel it discreditable to kindle the fire of their own rooms.

The way to do it.—Have your kindling wood cut not over five inches long, and split in pieces not larger than an inch square, but some of them should be mere splinters; take half a newspaper, and a quart or two of small coal or coke. These should be all placed near the grate over night; clean out the grate, at least the centre of it, crumple up the paper and lay it on the iron, set up the pieces of kindling in the shape of a tent or stack of arms, or an inverted funnel, the smaller splinters next the paper pressed closely against it; then lay the smaller pieces of coal, not much larger than the first joint of the thumb, close against the wood until the

wood is hidden; then light a detached piece of paper with a match and place it under the grate, holding it close to the paper already there, let that paper fairly catch, put on the blower, and in about five minutes the coal will be ignited; then add one or two shovelsful more and replace the blower, and soon you will have a glowing fire without one failure in a whole winter; and it will not consume five minutes' time, after the grate is cleaned out.

But you must know the philosophy of all this, or you will not remember the details five minutes.

The wood must be small and in close proximity to the paper; for before anything burns, it must be saturated with caloric, it must get hot, and the smaller the piece of wood is the sooner it will get hot, and the less heat, or caloric, will make it so; and as paper gives out but little heat, unless the wood is small and close, it will be scattered, and thus fail to ignite. The same is particularly true of anthracite coal; it must be thoroughly heated before it takes fire, and it is easy to see that it requires a less amount of caloric to heat a small piece of coal than a large one, and less time, too;—thus it is, that the most effectual way of putting out a "poor" coal fire, is to fill up the grate with fresh coal; for there was enough caloric to have heated a few small pieces to the kindling point; but when distributed to a larger amount, none of it was raised to the degree requisite for ignition. Therefore always put on a little coal at a time.

In this way, as much wood four or five inches long as may be grasped in one hand is abundantly sufficient for kindling one fire promptly of anthracite coal, and certainly thus we have kindled a fire two seasons with one load, that is, a third of a cord of pine wood. Families will economise by having the "lengths" theoretically four feet, practically, three and a half scant, cut six times; it gives more shillings to the sawyers, but fewer dollars to the wood-man. It will be of additional economy and interest to know, that in cleaning out the grate in the morning, you will have a good substitute for coke, if after separating the ashes, the pieces of partially burnt coal are thrown into a pail of water to be used next morning. They thus derive a new supply of oxygen from the water, and kindle easily with a bright flame. Whereas, if placed on the fire without having been soaked in water they smoulder away, giving but little light or warmth. Only the black-looking pieces in the water are fit for burning again. If you do not have these, you must have coke, or use more wood.—*Hall's Journal of Health.*

BOYS' DEPARTMENT.

SELF-SUPPORT.

Arches of brick or stone are always built upon a form or arch of wood, which is supported by shoars or posts. On this form, or wooden arch, the true arch is built, or "turned," as it is called in masonry, and when the keystone or central course of brick is laid, so as to bring together the two sides of the arch, the form, or pattern, may be taken out and the arch will be self-supporting. It is usual, however, to build above the arch to a considerable distance before the supports of the wooden arch are knocked out.

On one occasion, however, a builder had got too much weight on the centre of an arch, and that centre being supported by the wooden arch, and the masonry having shrunken so that the feet of the arch did not rest very firmly on their foundations, they began to spread out. On seeing this the workmen became alarmed and started to run, expecting a crash; but the master-builder, wiser than the rest in respect to the principles of the arch, seized a sledge-hammer and knocked out the wooden support which had sustained the arch, and which was now destroying it, and this allowed the whole pressure to come equally on every portion of the arch, when it instantly became fixed and self-supporting, and the more burden was then put upon it the stronger it became.

Does any young man detect in this a moral, applicable to his own character and the training to which he has been subjected? Has he been reared in luxury and ease, and sheltered and protected by his parents and friends? Does he lean on his friends and feel inclined to avoid responsibility, and live under the guidance of others, and be secured from danger in his course? If so, let him knock out the supports and leave the arch to settle down upon its own bearing, and become self-supporting.

Nearly every man of note, who stands self-poised, independent, and influential in community, was early thrown upon his own resources. The youthful Cass, with his entire property tied in a cotton handkerchief and hung over his shoulder on a rough stick, crossed the Alleghanies and buried himself in the western wilderness. Daniel Webster worked his way to fame and the courts of kings, from having "but two red cents," as he said in a letter to his brother, and being among strangers and unknown. Henry Clay was the poor "mill boy of the slashes," and became a peer of the ablest statesmen and greatest orators of his age. Jackson was a poor orphan boy, and by dint of unconquerable energy and self-reliance made himself master of a signal position, and swayed for years the destiny of his age and nation. Napoleon was a poor soldier, and carved out for himself a name, and taught the whole of Europe to fear him. Roger Sherman was a shoemaker, but feeling the spirit of greatness struggling for distinction, he took the hint and signed the Declaration of Independence.

But why enumerate? Everywhere in the different walks of life we find those most effective and influential who were early thrown upon their own powers, and thus were called into the rough experiences of life, and became trained to bear storms and hardships, and to accomplish great deeds.

The sons of the wealthy are sometimes called in early life to brave dangers, to engage in large business and manly enterprises, like Washington, and thus develop high and noble aspirations and energies; but in the main the sons of the rich are too apt to become like hot-house plants, by over-much care and brooding, and thus they are smothered, weakened and spoiled.

The old eagle drives her young out of the nest to try their wings, and thus qualify them to cleave the air and rise above the storm.

Let the supports be knocked out so that every one shall be brought to test his own powers, and then will manly vigor, self-reliance, planning talent and executive energy be developed, for the success of individuals and the good of society.